2nd International Conference of Technology, Science and Administration – 2022

(2nd ICTSA – 2022)

BOOK OF ABSTRACTS

Edited by

Prof. Dr. Niyazi A.S. Al-Areqi

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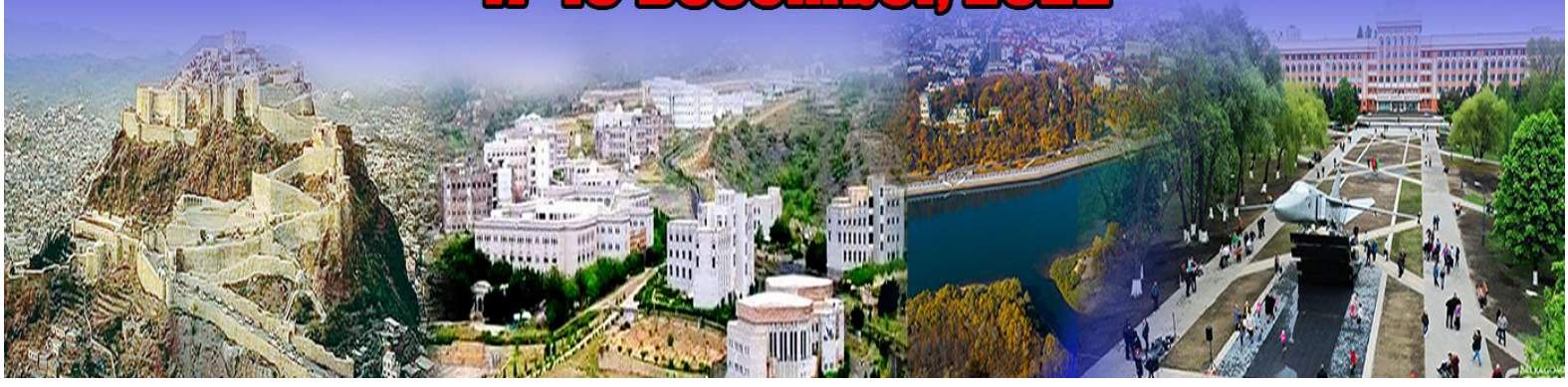

TABLE OF CONTENTS

About the 1st ICTSA-2021

Taiz University organized the 1st International Conference of Technology, Science and Administration-2022 (1st ICTSA-2021) on the period from 22nd to 24th , March 2022. The conference was linked with the EasyChair, which is one of the world-famous electronic systems concerned with submission and following up the reviewing of conference papers. The conference also allowed the participants to present their research work virtually via ZOOM software program in addition to the required health precautions recommended by WHO that have been taken during oral and poster sessions. This led to the success of conference, where the total number of submitted papers exceeded 183 from 14 countries, of which 104 papers have been accepted for presentation and published in 3 international and national journals (IEEE, IJSER, TURJ).

About the 2nd ICTSA-2022

To increase the space of world-wide participation in the 2nd International Conference of Technology, Science, and Administration – 2022 (ICTSA-2022) was organized by Taiz University and Sukhoi State Technical University of Gomel, Belarus in association with 11 government and national Yemeni universities, to commence in the period from 17th to 19th December 2022. This event was intended to provide the first platform for scientific interactions and challenges in the fields of Technology, Engineering, Applied Science, Medical Science, Administrative Science, Educational Science and Administration, and Recent Learning Technologies. The 2nd ICTSA-2022 is the best opportunity to reach the largest assemblage of participants from academicians, scientists, researchers, students, and industrial professionals, and will give the opportunity to actively exchange experiences and information with the people who are driving innovation across various fields. As a result of COVID-19 pandemic since early spring 2020, the 2nd ICTSA-2022 like other current conferences has allowed participants to present their research work virtually via ZOOM software program in addition to the required health precautions recommended by WHO that will be taken during oral and poster sessions.

Themes & Topics Covered

- **Technology & Engineering:** communication Engineering, Image & Digital Signal Processing, Multimedia Communications, Computer Networks, Networks Security, Automatic Control, Software Engineering, Artificial Intelligence, Robotics, Mechanical Engineering, Industrial Engineering, Civil Engineering, Medical Engineering, etc.
- **Applied Sciences:** Physical Science, Chemical Science, Mathematics, Computer Science, Zoology, Botany, Microbiology, Environmental Science, Earth Science, Biotechnology, Renewable Energy, etc.
- **Medical Sciences:** Medicine & Surgery (all sp), Dentistry, Medical Laboratory, Pharmacy, Nursing, Radiology, etc.
- **Administrative Sciences:** Business Administration, General Administration, Heath Administration, Human Resource Management, Management Information Systems, Tourism Administration, Data Science & Business Administration, Strategic Planning, Marketing, Economics, Accounting, Financial Markets, Banking, Applied Statistics, Political Science etc.
- **Educational Administration and Learning Technologies:** Educational Management, Educational Technology, Foundations of Education, Curriculum & Teaching Methodology, etc.

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Track (8): Administrative Sciences

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Track (9): Learning Technologies & Educational Management

Dr. Gamal Ahmed Alawi

In the name of Allah, the most gracious, the most merciful. Peace and blessing be upon you all, Excellencies, Distinguished Delegates, Participants, Ladies and Gentlemen

On behalf of the University members, it is a great honor for me, to extend to you all, a very warm welcome to the ***2nd International Conference of Technology, Science, and Administration – 2022 (2nd ICTSA – 2022)****, and express my proudness that,* ***Taiz University*** *in collaboration with* ***Sukhoi State Technical University of Gomel - Belarus*** *is organizing and embracing this great second international event, and inviting eleven Yemeni universities of a high repute. I am also so pleased with this great collaborative academic work, which is a very great achievement in our institute's history. Despite all challenges Taiz University had and still facing duo to the war and siege, we were not able to thrive, but we are also trying to exchange knowledge with the world in the fields of engineering, science, administration, medicine and education.*

I believe that the ***2nd ICTSA – 2022*** *will be a great chance for our university as well as other participating institutes to be heard of and to promote their rank among the international institutes. As a president for Taiz University, I have been striving for leading it towards success academically and as research institute. We realize that our efforts for the better world will make a bigger impact with more collaboration involving various concerned stakeholders.*

Last but not least, I would like to thank all the participants, organizers, and attendees who made this event happen. Also, I wish you all enjoying the conference program, having a fruitful experience and networking from the conference, as well as having a pleasant participation.

Prof. Dr. Mohammed Mohammed Saeed Alshoaibi

Rector of Taiz University.
Convener of ICTSA.

Bismillah Alrahman Alraheem Assalamualaikum Wa Rahmatullahi Wa Barakatuh, Delegates, Participants and All Attendees,

On behalf of the organizing committee, it is my earnest duty to express an extremely welcome to you all to witness this great event i.e., the ***2nd International Conference of Technology, Science, and Administration – 2021 (2nd ICTSA–2022)****, organized by our university in collaboration with* ***Sukhoi State Technical University of Gomel - Belarus*** *and invited eleven Yemeni universities. My heartiest thanks are to* ***Prof.Dr. Mohammed M. S. Alshoaibi****, the president of Taiz University and all presidents of participating universities who have spared their valuable times to be with us to make this occasion a grand success.*

Last year, the ***1st ICTSA– 2021*** *provided a wide range of topics covering several areas. The scientific program of the present three- day conference was chosen to provide a unique opportunity for the interaction of academicians, scientists and students working in different fields of specialization. I am confident that the deliberations of the* ***2nd ICTSA– 2022*** *this year will cross the traditional and classical boundaries and become more diffuse with the introduction of interdisciplinary cutting-edge areas of at the interface of sciences such as, Technology, Engineering, Applied Science, Medical Science, Administrative Science, Educational Science and Administration, and Modern Learning Technologies.*

Once again, on my own behalf and on behalf of organizing committee I have a great pleasure in extending to you a cordial invitation to participate in the scientific program of the ***2nd ICTSA– 2022****. Finally, it will be incomplete if I do not express my gratitude to the members of the organizing committee and all supporting staffs of the university for their efforts making this event successful. However, if some deficiencies remain that could be ignored because of some unavoidable circumstances.*

Prof. Dr. Saddiq Hassan Al-Shamiri
Vice-rector of Taiz University for Higher Studies & Scientific Research.
Co-convener & Organizing Supervisor of ICTSA.

In the name of Allah, the most gracious, the most merciful. Assalamualaikum Warahmatullahi Wabarakatuh, Delegates, Participants and All Guests,

First and foremost, it is a great honor for me to cordially welcome you all to the ***2nd International Conference of Technology, Science, and Administration – 2022 (2nd ICTSA – 2022)*** *organized by* ***Taiz university*** *in association with* ***Sukhoi State Technical University of Gomel - Belarus*** *and other universities of Yemen. Like last year,* ***2nd ICTSA – 2022*** *will be held partially online as a webinar due to the current war that has influenced every sector all over the country. However, we cannot let this difficult situation reduce our research motivation and productivity.*

It is also an honor for Taiz University to share this event in its second series with many Yemeni universities to disseminate knowledge, research results, and technology, exchange ideas and share success stories among us and stakeholders from around the globe. Furthermore, as part of the local, national and global communities, Yemeni universities have continuously been making significant contributions in finding solutions towards national issues through research, technology development, and community services.

The important point I would like to emphasize here is that to be more heard and to make a difference, we must be open to the outside world. So, alongside of the president of our university, ***Prof. Dr. Mohammed Al-Shoaibi****, we will strive to ensure this openness at our university in order to become a world-class academic and research institution. It is worthwhile to mention that the accepted conference papers will be published in the 2nd ICTSA proceedings, which without a doubt will promote the rank of our university and participating universities among the international academic institutions.*

Last but not least, I would like to welcome all delegates and participants who have joined the ***2nd ICTSA – 2022*** *physically or virtually, and I wish you will enjoy the three days of this event, and will have fruitful and rewarding exchanges during online presentation and discussion.*

Prof. Dr. Riyad Aloqab
Vice-rector of Taiz University for Students Affairs.
Co-convener of ICTSA.

In the name of Allah, the most gracious, the most merciful. Peace and blessing be upon you all, Excellencies, Distinguished Delegates, Participants, Ladies and Gentlemen

I would like to welcome you all to the ***2nd International Conference of Technology, Science, and Administration – 2021 (2nd ICTSA – 2022)****, and express my proudness that, Taiz University is organizing and embracing this great event in collaboration with seven Yemeni universities. I first wish to thank our* ***University President, Prof. Dr. Mohammed Al-Shoaibi*** *and presidents of participating universities who have been greatly supporting all activities aiming to enhance the national and international academic performance of all Yemeni universities as a whole.*

As academicians and scientists, the continuous siege on Taiz due to the current war as well as the COVID-19 pandemic since spring 2020 have been somehow limiting our capability in doing scientific research work, education, and community services as our main tasks. But today, we have the privilege of holding our second virtual ICTSA, thanks to the development of information system and technology. This great event will mark a milestone and great achievement of the university, though all obstacles and challenges we are all still facing a violent crisis in Taiz due to the on- going war. I believe that this conference will be an excellent platform for all delegates and participants to interchange knowledge and skills in the fields of ***Technology, Science, and Administration****.*

I am extremely grateful to organizing committee members and all other administration bodies of the university who have supported and encouraged at every stage to make this conference a great success and a comfortable and enjoyable participation of delegates in academically charged atmosphere.

Dr. Mohammed Ahmed Fadhl

Vice-president of Taiz University for Academic Affairs.

Co-convener of ICTSA.

Assalamu Alaikum Wa Rahmatullah Wa Barakatoh
Excellencies, Distinguished Keynote Speakers, Participants, Ladies and Gentlemen,

On my own behalf and on behalf of the organizing committee, it is my earnest duty to extremely welcome all of you to the ***2nd International Conference of Technology, Science, and Administration- 2022 (2nd ICTSA-2022)****, organized by Taiz University in collaboration with* ***Sukhoi State Technical University of Gomel - Belarus*** *and in association with eleven Yemeni universities. This event was intended to provide the first platform of collaboration among national and international universities for scientific interactions and challenges in the fields of Technology, Engineering, Applied Science, Medical Science, Administrative Science, Educational Science and Administration, and Modern Learning Technologies. The* ***2nd ICTSA-2022*** *is the best opportunity to reach the largest assemblage of participants from academicians, scientists, researchers, students, and industrial professionals, and will give the opportunity to actively exchange experiences and information with the people who are driving innovation across various fields.*

I am really confident that the ***2nd ICTSA-2022*** *would provide ample opportunities to all participants to acquire and amalgamate novel ideas of the research methodology on emerging sciences and technologies, and hopefully can provide a valuable opportunity for academicians, scientists, students and decision- makers to share experiences and expertise.*

I am here proudly announcing that the conference has subscribed in ***EasyChair*** *– one of the most international repute systems used for electronic submission and reviewing of the conference papers. I am also very proud that the accepted papers are going to be published in international and national journals of high repute.*

Before, closing, I am extremely grateful to the president, vice- presidents, and all faculties' deans, centers' directors and other administration bodies of our university and all other participating universities who have supported and encouraged us at every stage of organization. It will be incomplete if I do not express my thanks to all members of conference committees for making this event a big success.

Prof. Dr. Niyazi A. S. Al-Areqi
ICTSA Secretary- general & Coordinator.

In the name of Allah, the most gracious, the most merciful. Assalamualaikum Warahmatullahi Wabarakatuh, Delegates, Participants and All Guests,

I have the pleasure to welcome you all to the ***2nd International Conference on Technology, Science and Administration -2022 (ICTSA-2022)*** *at Taiz University, Taiz, Yemen, with its special theme on Engineering and Technology, Administration Science, Applied Sciences & Medical, Educational Management & Technology.*

Ensuring a high-quality conference requires accepting papers that pass a rigorous review process. This year, a large number of papers were submitted to the conference. Each paper was subject to review by 2–3 reviewers of the program committee members. The acceptance rate is 70% for the technical papers, 25% for researchers and 5% for posters. The papers came from across 6 countries around the globe, from academia and industry. We have 4 technical tracks and 6 keynotes. The conference lasts for 3 days and provides abundant activities including researchers' posters and demos session on the first day and a fabulous social program during the 3 days.

We would like to express our deepest appreciation to the authors whose technical contributions are presented in these proceedings. It is because of their excellent contributions and hard work that we have been able to prepare these proceedings. The significance of the research presented in this conference represents a step further towards maturity in Technology, Science and Administration.

We would like to thank all our keynote speakers who made all the efforts to synthesize the materials and their wide and rich experiences to deliver distinguished talks. We would also like to thank all our tutorial presenters for their great efforts in delivering interactive and excellent tutorials that address the learning needs of all levels, undergraduates, graduates, and professionals. We are very grateful to our track chairs for their great efforts in reviewing the papers in their tracks and organizing to assign other volunteer reviewers, the conference technical program committee members, and the designated reviewers. Finally, we hope that the participants enjoy the outstanding conference program of the 2022 2nd International Conference on Technology, Science and Administration (ICTSA-2022) in Taiz University, Taiz, Yemen, that we create for them.

Dr. Gamal Ahmed Alawi

Superchair of ICTSA

Dear participants, partners and friends!

On behalf of Sukhoi State Technical University of Gomel (GSTU) let me greet you on the ***2nd International Conference of Technology, Science and Administration – 2022*** *(2nd ICTSA – 2022). We are very grateful to be invited to this prominent scientific event and be a part of this event.*

We have the honour to present you Sukhoi State Technical University of Gomel that is one of the leading technical education institutions in the Republic of Belarus and it provides training for the graduation of engineering personnel and higher scientific qualification personnel for such branches of industry as mechanical engineering, metallurgy, power engineering, economy, radio electronic engineering and information technologies. In accordance with special permit (license) to provide educational activity issued by the Ministry of Education of the Republic of Belarus the University provides instruction in 22 specialities of the first level of higher education, in 8 specialities of the second level of higher education (for a Master's Degree), in 9 specialities for a Ph.D. and Doctor's Degrees, 18 specialities for retraining people with higher education and also pre-University training for students of high and high specialized education institutions.

Scientific and practical journal "Vestnik of the Sukhoi State Technical University of Gomel" included on the list of Supreme Certification Commission for publishing dissertation thesis in engineering for higher degrees is published.

Biannual International Scientific and Technical Conference "Present-Day Problems of Engineering Science" is held at the University representing scientific readings in memory of P.O.Sukhoi.

The University participates in governmental and intercollege scientific and technical programs and is involved in cooperation in the fields of education and science with the Abdus Salam International Center for Theoretical Physics (the city of Trieste, Italy) Trieste and Padua Universities, Joint Institute for Nuclear Research (the city of Doubna, Russia and a number of other foreign establishments and educational institutions.

I wish all the success, fruitful cooperation and useful experience as well as enjoyment!

Prof. Dr. Arthur Vladimirovich Putsiata

Rector of GSTU, Co-convener of 2nd ICTSA-2022.

***Дорогие** Друзья!*

*Выражая свою искреннюю признательность руководству Тайского университета, хочу поздравить вас со столь значимым мероприятием как **2-я Международная конференция по технологиям, науке и управлению – 2022 (ICTSA-2022)**. Встречи ученых из разных стран, работающих по одинаковым научным направлениям позволяет не только обменятся знаниями, но дает толчок к новым идеям, позволяет находить решения для самых сложных задач. Но это не главное, главное то что такие встречи позволяют находить единомышленников, партнеров и друзей! От себя хочу поздравить участников **2-я Международной конференции по технологиям, науке и управлению – 2022 (ICTSA-2022),** пожелать творческой и плодотворной работы !*

Dear Friends!

Expressing my sincere gratitude to the leadership of the Taiz University, I would like to congratulate you on such a significant event as the 2nd International Conference on Technology, Science and Administration – 2022 (ICTSA-2022). Meetings of scientists from different countries working in the same scientific fields allows not only to exchange knowledge, but gives impetus to new ideas, allows finding solutions to the most complex problems. But this is not the main thing, the main thing is that such meetings allow you to find like-minded people, partners and friends! On my own behalf, I want to congratulate the participants of the 2nd International Conference on Technology, Science and Management – 2022 (ICTSA-2022), wish them creative and fruitful work!

Prof. Dr. Andei Andreevich Boika

Vice- rector of GSTU for Research Affairs, Co-convener of 2nd ICTSA-2022.

In the name of Allah, the Most beneficent and the Most Merciful, May peace, mercy, and blessing of Allah be upon you.

It is my immense pleasure to warmly congratulate the administration and faculty members of Taiz University on their successful organization of the ***2nd International Conference of Technology, Science and Administration - 2022 (2nd ICTSA- 2022)****.*

The participation of University of Aden in organizing this scientific event mirrors its firm belief in the necessity of coordinating efforts, integrating visions, developing ideas and programs, developing innovative relationships, building bridges of partnership and cooperation at the level of local or regional and international universities.

Last but not least we thank all organizing committee members and other supporting staffs of this scientific conference.

All our wishes are for the participants to succeed and produce recommendations and results, which have positive marks on the whole society.

Prof. Dr. Alkhader Naser Laswar

Rector of University of Aden, Co-convener of 2nd ICTSA-2022.

In the name of Allah, the Most Beneficent and the Most Merciful. May peace, mercy, and blessings of Allah be upon you.

Dear colleagues, professors, lecturers, researchers, ladies and gentlemen. On behalf of all the staff of Hadhramout University, it is our pleasure to warmly welcome all of you to this great collaborative academic event, the ***2nd International Conference of Technology, Science, and Administration-2022 (2nd ICTSA-2022)****, organized by Taiz University in association with other Yemeni universities. We are looking forward to raising the level of scientific and research achievement for all members of Hadhramout University, through their participation with other Yemeni universities in this conference. The participation in these difficult times for the country is considered as an achievement for all co- convener universities, as it shows the bright side of the scientific and research fields provided by academic researchers in the country. In addition, our researchers want to raise scientific awareness and share their thoughts and ideas in various fields. Addition to increase the scientific awareness and share their opinions and discussions in various fields. Finally, we thank all organizing committee members and other supporting staffs of this scientific conference. All our wishes are for the participants to succeed and produce recommendations and results, which have positive marks on the whole society.*

Prof. Dr. Mohammed Saeed Khanbash

Rector of Hadhramout University, Co-convener of 2nd ICTSA-2022.

Dear Prof. Dr. Mohammed M. S. Al-Shoaibi, President of Taiz University, President of the ***2nd International Conference of Technology, Science, and Administration – 2022 (2nd ICTSA – 2022)****, brothers, Presidents of participating universities, each in his name and attribute, peace and God's mercy and blessings be upon you. We, at Abyn University, are pleased and honored to participate in this wonderful scientific gathering, which is the* ***2nd ICTSA – 2022*** *organized by Taiz University in partnership with ten other Yemeni universities.*

We are so happy to be chosen as one of the organizing of this great second international event in association with other Yemeni universities of a high repute. Abyn University is emerging university, which was established on February 22, 2018, in very difficult circumstances. However, despite the difficulties, Abyn University was able to take successful steps in establishing the university's infra-structures by the university beside Zanzibar Faculty of Education, which was established in 1978, and Lauder Faculty of Education, which was established in 1998.

Now Abyn University consists of five faculties: Zanzibar Faculty of Education, Lauder Faculty of Education, Faculty of Computer and Information Technology, Faculty of Sharia and Law, and Faculty of Administrative Sciences. Moreover, the university have four scientific centers: Center of Continuing Education, Environment and Marine Sciences Center, Heritage Studies Center and Women Center for Studies and Research.

Two quarterly journals have also been published: Abyn University Journal of Applied Sciences and Humanities, and Abyn Cultural Journal. Abyn University has 300 faculty members, including a professor, an associate professor, an assistant professor and a teaching assistant stuff. The number of male and female students at at university is about 3100, about 67% is female. Two years ago, two master's programs were opened in the department of Education: Educational Administration and Curriculum and Teaching Methods, as well as in the Department of History.

In the field of scientific symposia and workshops, Abyn University has held a number of scientific symposia and workshops and has participated in in scientific symposia in Maghreb, Turkey, Aden, and Hadhramout universities. We also participated in the 3rd International Conference on Education in Djibouti, and a number of workshops held in the Ministry of Higher Education and Scientific Research of Yemen.

In the end, I wish all success to this conference, and I hope that its outputs will be at the level of this wonderful scientific gathering. Moreover, I sincerely wish all the success to all the participants.

Prof. Dr. Mahmoud Al-Maisari

Rector of Abyn University, Co-convener of 2nd ICTSA-2022.

*The **2nd International Conference of Science, Technology and Administration 2022 – (2nd ICTSA-2022)** in Taiz city refers to the insistence of Yemeni scientific sector on continuing of Scientific movement regardless of the difficult situation and complicated circumstances which are faced by the country.*

This will be either the direct presence or through Zoom technology to gather major numbers of scientists and researchers.

The variety of axes of the conference give chances to all researchers in different fields to exchange knowledge and build relations to establish shared scientific projects.

Hopefully, we wish that the products and outcomes of the conference will add useful scientific products to knowledge and have impacts on development.

Great thanks are to Taiz University and committee that prepare the conference and great thanks to those who will display their researches which will be the base of the conference.

Prof Dr. Mohammed Ashur Alkatheri

Rector of Seiyun University, Co-convener of 2nd ICTSA-2022.

On behalf of my fellow faculty members and the administrative staff of University of Saba Region, let me begin by expressing my very warm welcome to you all to this great collaborative academic event. First, it is my immense pleasure to warmly congratulate the administration and faculty members of Taiz University on their successful organization of the ***2nd International Conference of Technology, Science, and Administration – 2022*** *(****2nd ICTSA-2022****). Undoubtedly, such a remarkable event represents a unique contribution to the growth of academia and an extraordinary step that may contribute to offering scientific results and solutions to a number of pressing issues required for the development and growth all walks of human life; including medicine, science, administration, engineering …etc.*

The participation of University of Saba Region in organizing this scientific event mirrors its firm belief in the necessity of coordinating efforts, integrating visions, developing ideas and programs, developing innovative relationships, building bridges of partnership and cooperation and exchanging experiences; whether at the level of local or regional and international universities, in various fields of education, academic and research. This endeavor has been culminated in cooperation agreements between us and a number of local and international universities, with a view to drawing on the experiences of others and achieving the goals set in the development of performance, achieving overall quality and advancing the educational and academic process.

In order to promote partnership and exchange of experiences, we invite researchers to participate in this Conference which fundamentally aims at achieving pioneering and innovation, transferring expertise and experiences and contributing to keeping up with the developments of the modern time and to overcome its rapid challenges.

Last but not least, I would like to thank whoever has a share in organizing this great event, be they the Preparatory Committee members or the Scientific Committees and the researchers. We pretty sure that the Conference will achieve its objectives and concludes with practical and effective results that are likely to make it a milestone in a challenging phase.

Prof. Dr. Mohammed Hamood Al-Qadasi

Rector of University of Saba Region, Co-convener of 2nd ICTSA-2022.

Bismi Allah, Alrahman, Alraheem. Assalamu Alaikum wa Rahmatu Allahi wa Barakatuh, Distinguished Delegates, Participants, and All Guests,

On behalf of all stuffs of Al-Saeed University, it gives me a great pleasure to warmly welcome you all, and extend to you a cordial invitation to the ***2nd International Conference of Technology, Science, and Administration- 2022 (2nd ICTSA-2022)****. As a president for Al-Saeed University, I am extremely proud of having been the first academic institute joining this great assemblage of collaboration in striving for leading our university towards success academically and as research institute. The interesting point to be emphasized here is that in order to be more heard and to make a difference, we must be open to the outside world. So, our university will strive through bequests of our university's founder,* ***Hail Saeed Anam*** *to ensure this openness at our university in order to become a world-class academic and scientific institute.*

I believe that this conference will be a great chance for our institute to be heard, and to promote its rank among world- wide institutes. The 2nd ICTSA– 2022 was organized to include a wide range of topics covering several areas of sciences, viz. ***Engineering, Technology, Applied and Medical Sciences, Administration and Educational Management, etc****. I am also confident that the cooperative scientific program of this three- day conference would provide a unique opportunity for all delegates and participants to interact and exchange knowledges and ideas of the research methodology on emerging sciences and technologies. I am also proudly happy that the proceedings of* ***2nd ICTSA-2022*** *will be published in international and national journals.*

Finally, I am extremely grateful to the president of Taiz University, ***Prof. Dr. Mohammed Al-Shoaibi*** *for the invitation to share this grand event. I would also like to express my earnest gratitude to organizing committee members, researchers, and all supporting stuffs of our university and other participating universities for making this conference a big success.*

Prof. Dr. Adam Hezam Al-Shamiri

Rector of Al-Saeed University, Co-convener of 2nd ICTSA-2022.

In the name of Allah, the Most Beneficent and the Most Merciful. May peace, mercy, and blessings of Allah be upon you! Dear colleagues, professors, lecturers, researchers, ladies and gentlemen!

On behalf of Al Hikma University, I welcome you all. It is my great pleasure and honor to participate in ***the 2nd International Conference of Technology, Science, and Administration – 2022 (2nd ICTSA – 2022)****, which is organized by Taiz University and held in the attracting city of Taiz.*

The 2nd International Conference of Technology, Science, and Administration – 2022 (2nd ICTSA – 2022), which I have no hesitation describing it as exceptional, has become the premier platform not only for the presentation of new science and application, but also for unique networking opportunities. Building on the success of the 1st International Conference of Technology, Science, and Administration, the 2022 Conference will be a great international gathering of researchers and scientists in the fields of engineering, science, administration, medicine and education.

I believe that we should be clearly aware of the importance of interdisciplinary cooperation. We need to promote cooperation within the profession and with natural and social scientists and the public in the creation and application of knowledge for enhancing nation productivity and competitiveness. Curriculum and pedagogical reform in engineering education and continuous professional development to encompass wider social and ethical concerns are needed. International cooperation in engineering facilitates the exchange of knowledge and promotes technological applications for safer and well-being future to support human life sustainability. In accordance with this vision, and in association with seven Yemeni universities, this international conference is one among many efforts to make this vision come true.

I hope the deliberations from various distinguished speakers will benefit the participants to update their knowledge. I extend my best wishes for great success of this inspiring conference held in the historical and multicultural Taiz.

Prof. Dr. Abdu Mohammed Al Kulaibi

Al-Hikma University Branch Manager – Taiz, Co-Convener of 2nd ICTSA-2022.

Dear participants, organizing committees, and partners!

I, personally and on behalf of my co-organizers, would like to welcome each one of you to ***the 2nd International Conference of Technology, Science, and Administration – 2022 (2nd ICTSA –2022)****.*

This conference is considered an exciting and fruitful time for researchers in various fields. It represents an important stage in order to continue academic and scientific growth and to adapt and overcome the tragic situation experienced by sieged Taiz. This cultural city in Yemen is still steadfast in these critical circumstances, because of all its distinguished and wonderful universities and academics. Our universities will always remain adaptable, motivated, and responsive to all modern science and technology. This is stemming from our belief that science is the only real weapon to overcome the current tragic status.

The natural sciences and management are an exciting field for applying, studying, and researching in different community aspects needs such as industry, economics, and even politics. This represents a guarantee that scientific and academic life will remain represented by universities at the forefront.

What we would hope to achieve during the special days of this conference is to get novel ideas and future visions in various scientific fields. As well, we aim to publish the contributions of our researchers in the fields of engineering, technology sciences, administrative sciences, applied and medical sciences, educational management technology, and many other fields. We seek to exchange ideas, experiences, and information between creators and researchers in the latest developments in these natural and administrative sciences.

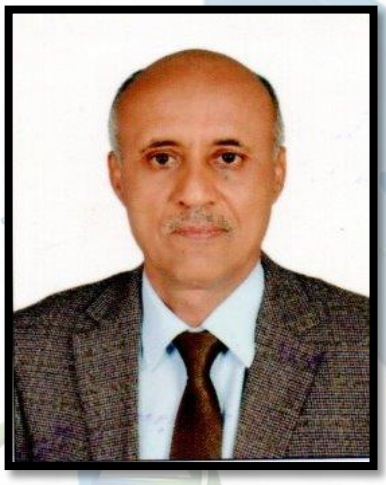
This year, we have changed the way we work to constantly improve our ability to organize such international scientific conferences and carnivals for the great benefit of researchers and academics at the local and international levels. We hope that the participants will see this change in this second year of the conference. We, Al-Janad University for science and Technology, and all other universities are proud of where we are today and excited about where we're headed.

Before I conclude, I would like to thank you all for attending our conference and bringing your expertise to our meeting. You as university leaders, researchers, academics, and participants have the vision, knowledge, capabilities, and experience to help us pave our way to the future. You are truly our greatest wealth today and tomorrow, and what we are doing would not have been possible without your support and participation.

With my deepest personal respect and thanks to all of you.

Prof. Dr. Mohyeddine Alqubati

Rector of Aljanad University for Science & Technology, Co-Convener of 2nd ICTSA-2022.



In the name of Allah

With pleasure I would like to start talking about the participance of the National University in the ***2nd International Conference of Technology, Science and Administration – 2022 (2nd ICTSA – 2022),*** *which is organized by* ***Taiz University*** *in the period 17-19 September 2022 with the sharemen of* ***Sukhoi State Technical University of Gomel – Belarus****, with several Yemeni Governmental and Private Universities. We are proud of this occasion and we respect and appreciate the idea of organizing of the conference, its idea and preparing regardless the obstacles and difficulties that are perceived by all. The National University believes in the role of Scientific Research in the social development and the role of Scientific conference in the exchange of knowledge and experience.*

By the perceiving of exceptional importance of the conference, either time or place, and what the conference will provide to human ana applied fields. Such as visions and ideas will support to overcome difficulties and obstacles that are faced by our community. Also, we perceived the assembly of Yemeni universities which will be achieved and established during this conference.

Hopefully with conference, all the scientific participances will be productive and serious by the help of Allah and the conference will be the level of ambition and circumstances and it will give benefits to our community with its components.

Last not least, I wish all participants the success and enjoyment in sessions and meetings of three- day conference program. I am extremely grateful to Prof. Mohammed M. S. Al-Shouaibi, the rector of Taiz University for hosting this great event and all rectors of participating universities. I would also like to thank the organizing committee members and all other conference committees' members who have supported and encouraged at every stage to make this conference a great success.All appreciation, thanks and respect.

Prof. Dr. Mohammed Abdullah Abdul Aziz

Rector of National University, Co-Convener of 2nd ICTSA-2022.

Scientific conferences aim to develop the internal environment of societies by supporting the activity of the scientific research movement, the publication of scientific research and resulting upgrading of the level of science through the holding of such meetings between researchers in the same field, or in more than one area as well as exchanges of ideas and debates which lead to scientific cooperation resulting in new ideas and research. Scientific conferences also offer an introductory opportunity to determine new scientific research findings that serve the scientific global process, reflect its impact on all humanity and open up new ideas and solutions to complex problems. Developed countries grow and thrive only with science and knowledge. It is a cause of joy and pride that Al-Rowad University participates in this scientific conference, which values Taiz University in conjunction with a number of other public and private Universities ***(Second International Conference on Technology, Science and Administration – 2nd ICTSA-2022)****. We are confident that this conference will constitute a great historical opportunity and a bright step in the realms of Al-Rowad University, and will be one of the most important delegates supporting scientific research, especially in the field of science, engineering and technology, reflecting positively the advancement of scientific science to meet the major challenges at the local and global levels.*

Our Yemeni society, especially the Arab community in general needs to grow, promote and work hard tirelessly, and hence our greatest need for scientific cooperation between our universities, to reflect science and thought into reality which hopefully may serve our Yemeni and Arab society in general.

Finally, we evaluate the efforts of the organizers of this scientific conference, wishing it success and to produce results and recommendations that have a positive reflection on the advancement of society and human development in the public interest.

Dr. Mohammed Ahmed Al-Khateeb

Vice – rector of Al-Rowad University, Co-Convener of 2nd ICTSA-2022.

Assalamualaikum wa rhamat Allah wa barakatoh Excellencies, Distinguished Delegates, Ladies and Gentlemen,

On behalf of the higher advisory committee, I am pleased to welcome you all to the ***2nd International Conference of Technology, Science and Administration - 2022 (2nd ICTSA-2022)****. First, I would like to thank Rector of Taiz University,* ***Prof. Dr. Mohammed M. S. Al-Shuaiby****, who has been greatly support for any activities aiming to improve institution's international performance. I would also like to extend our gratitude to* ***Sukhoi State Technical University of Gomel – Belarus*** *for its share with eleven Yemeni Universities in organizing this event and for the tremendous supports of all facilities required for hosting the 2nd ICTSA-2022.*

Ladies and Gentleman,

The tremendous scientific efforts and the large funds have been invested in developing and integrating the information system and technology into various sectors such as agriculture, business, agroindustry, bioindustry, renewable energy, etc. We know that many of scientists play a key role in building this capacity in their countries, and I hope that some of them are with us today.

The 2nd ICTSA-2022 is a platform for international society and is hopefully can provide a valuable opportunity for academician, scientists, students and decision-makers to share experiences and expertise. Therefore, I am grateful to our keynote speakers as well as many experts who have joined us to share their knowledge.

Once again, on my own behalf and on behalf of higher advisory committee I have great pleasure in extending to you a cordial invitation to participate in the scientific program of 2nd ICTSA-2022. Finally, it will be incomplete if I do not express my gratitude to the members of the organizing committee and all supporting staffs of the university for their efforts making this event successful. However, if some deficiencies remain that could be ignored because of some unavoidable circumstances.

Prof. Dr. Yahya Abulghafar Hassan

Dean of Faculty of Administrative Sciences, Taiz University.
Member of ICTSA Higher Advisory Committee.

In the name of Allah, the most gracious, the most merciful.*Peace and blessing be upon you all,*

Excellencies, Distinguished Delegates, Participants, Ladies, and Gentlemen,

On behalf of the higher advisory committee, it is a great honor for me, to extend to you all, a very warm welcome to the ***2nd International Conference of Technology, Science and Administration - 2022 (2nd ICTSA-2022)****. First of all, I would like to take this opportunity to express my gratitude to* ***Prof. Dr. Mohammed M. S. Al-Shuaiby****, rector of Taiz University and also to* ***Prof. Dr. Arthur V. Putsiata****, rector of Sukhoi State Technical University of Gomel (GSTU), Belarus for jointly organizing this great event in its second series along with some famous Yemeni universities.*

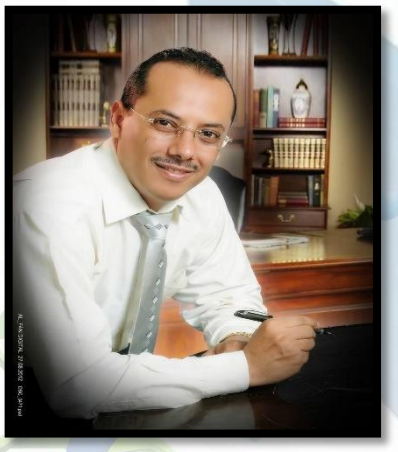
I believe that the 2nd ICTSA-2022 would be important and exceptional conference this year, as it has brought together this assemblage of participants from different national and international institutions to disseminate knowledge, research findings and technology and science advances, as well as to exchange ideas and to share success stories and experiences. Therefore, I am grateful to all keynote speakers as well as many experts who have joined us to share their knowledge. Today, about 90 presenters and participants are participating in the 2nd ICTSA-2022, from 14 countries.

Furthermore, as part of the local, national and global communities, Faculty of Applied Science has continuously been making significant contributions in finding solutions towards national issues through research, technology development and community services. Therefore, I proudly announce that for the first time the Bulletin of Faculty of Applied Science (BFAS) in its 6th volume will publish the conference papers which are very relevant with the vision, mission and strategic planning of our faculty.

Last but not least, I wish you all enjoying the conference, having a fruitful experience and networking from the conference. I would also like to express my most sincere appreciation to the organizing committee for all efforts of making this event a big success.

Prof. Dr. Mahyoub Al-Buhairi

Dean of Faculty of Applied Sciences, Taiz University.
Member of ICTSA Higher Advisory Committee.



You are hotly welcomed to the ***2nd International Conference of Technology, Science and Administration – 2022 (2nd ICTSA -2022)****. It is a challenge, offers and efforts in the route of work and instance for excellency, progress and uniqueness of Taiz University and Sukhoi State Technical University of Gomel.*

Nations and civilizations are measured by their scientific and epistemological wealth as the civilized inheritance is considered the most important scientifically and historically by what is provided to human and humanity. The research is considered sublime and ethical duty as Taiz University has a rich cultural and scientific heritage because it has human resource power provided for the sake of science, knowledge, and community as community needs scientific conferences to cure and remedies the crisis of the world.

The Faculty of Medicine and Health Sciences has an interest in international conferences though obstacles and difficulties in these exceptional circumstances such as zero budget but the work of the faculty was developed to high rank and has high position compared to faculties and universities. By help and support of Allah, we will encourage invention, important challenges, discussions and the exchange of knowledge for the benefit of gradates and their needs towards fields and markets, and development and innovation in the scientific sector.

As we perceived our responsibility towards students and their needs and achievement, we should open knowledge horizons and update knowledge in their fields.

It is necessary for us to take care and interest in scientific conferences to get a series of researches to apply scientific knowledge and transform it to material environment and supply with studies that developed thoughts and human level and to share it among those who work in all sides of science and reinforcement of cooperation among researchers and research centers, and local, Arabic and international universities.

Prof. Dr. Gamal Alamiri

Dean of Faculty of Medicine and Health Science, Taiz University.
Member of ICTSA Higher Advisory Committee.

In the name of Allah

Respected Brothers, Sisters and all participants in ***the 2nd International Conference of Technology, Science and Administration – 2022 (2nd ICTSA- 2022)****. In the beginning allow me to greatly thank Taiz University, this scientific institution, though miserable difficult circumstances in the province, it insisted on giving a spot light by doing its duty and function in serving scientific research.*

I would also like to appreciate and thank ***Sukhoi State Technical University of Gomel – Belarus*** *for its share with eleven Yemeni Universities in organizing this event, especially for cooperation in developing scientific research of Yemen and to encourage Yemeni researchers to publish their papers in the great scientific conference.*

We are in the Faculty of Education at Taiz University will participate effectively in the success of this conference and we will encourage our academic staff to provide and submit their scientific research papers and push them to participate in the scientific committee and in reviewing relevant papers.

I would like to congratulate you for this great international conference as an achievement for the second year consequently. We wish all of you the success in your sessions and meetings of three- day conference program.

Prof. Dr. Helmi Alshaibani

Former Dean of Faculty of Education, Taiz University.
Member of ICTSA Higher Advisory Committee.

*The International Conference "**Technology, Science and Administration**" comes on 2022 in its second version, which brings together those interested in scientific research from faculty members, students and researchers in universities, centers and higher institutes of science, in order to exchange views and scientific ideas among all those interested in scientific research in various fields of science, where scientific research has become a standard measure of the extent of the progress and development of societies. However, the faculty of engineering & IT devotes its efforts to serving science and achieving sustainable development to build a knowledge society based on scientific research and innovation.*

In this conference, we aim to explore the role of scientific research in achieving advancement and modernity by shedding light on the problems and challenges facing the researchers and finding optimal solutions to them. The role of the conference comes through the exchange of opinions and scientific ideas among all researchers, and our faculty also seeks through this conference to find effective partnership and cooperation with leading universities in the field of information technology and digital transformation in line with the recent development for serving our society.

We hope that this conference will achieve its desired goals as planned by the organizing committee and higher advisory committee, come up with recommendations and solutions to our life problems, and discuss recent scientific developments and the extent to which they are used scientifically and practically.

In conclusion, we invite all specialists to attend and participate by presenting the results of their studies and researches, and to enrich the conference with their valuable researches, which we wish to emerge their beneficial applications, and not remain confined to magazines and books.

May God grant success in organizing this scientific event.

Dr. Amin Saif

Dean of Al-Saeed Faculty of Engineering & IT.
Member of ICTSA Higher Advisory Committee.

In the name of Allah

It is my immense pleasure to welcome you all to the Taiz University sponsored ***2nd International Conference of Technology, Science and Administration – 2022 (2nd ICTSA - 2022)*** *cooperated with* ***Sukhoi State Technical University of Gomel****.*

ICTSA provides an opportunity for the meeting of International Researchers, Engineers, Scientists, and specialists in the various research and development fields of Engineering, Science, Technology and Administration.

The conference offers a premise for global experts to gather and interact intensively on the topics of Medicine, Sciences, Electronics, Information and Communication Technology, Computer Science and Information Technology.

I hope eminent speakers will cover the theme computation and innovation from different perspectives.

I am privileged to say that this conference will definitely offer suitable solutions to the research issues. I am also most grateful to the supporting universities, which have provided support to this conference financially and technically, in spite of the present economic scenario.

The success of this Conference is solely on the dedication and efforts of innumerable people who started working on the preparations for almost a year in many ways to make this Conference become a reality.

Eventually I express my special thanks and appreciation to all.

Prof. Dr. Abdulraqeeb Al-Samawi,

Dean of Faculty of Education., Taiz University.
Member of ICTSA Higher Advisory Committee.

Prof. Dr. Hanan Issa Malkawi (PhD. Microbiology & Molecular Biology)

Title of keynote speech: **"Biotechnological Applications of Microbes Adopted to Live in Extreme Environments"**

Hanan I. Malkawi, has earned her bachelor degree in Biological Sciences at Yarmouk University (YU)-Jordan, then she was offered a competitive scholarship from Yarmouk University (for scoring the highest GPA both at the Biology Dept. & at the whole University) toward completing her M.Sc. in Bacteriology & Public and then PhD degree in Microbiology & Molecular Biology both at Washington State University-USA, after which she returned to Jordan and appointed as assistant professor at Yarmouk University. She has been heavily involved in research lines in Microbiology, biotechnology and nanotechnology and their applications in environment, health, agriculture, food security & industry. She has been awarded recently on the National celebration of the 76th Independence Day (25th May 2022), **The King Abdullah II Ibn Al-Hussein Medal for Excellence**, second degree in recognition of her great role and contributions in the fields of biotechnology, nanotechnology and its applications in medicine, environment, agriculture, food and industry. She registered several patents and has over 75 published papers in peer reviewed international scientific journals. Prof. Malkawi has & still been invited as speaker and member of Steering/organizing committees in numerous International Congresses, and Forums and gave talks in more than 130 conferences and workshops world-wide. She has been and still an active member in several national, regional, and international committees, associations & organizations: currently she is a member of the Board of trustees of the German-Jordanian University. She served as chair of the Academic committee & member of the Board of Directors for the Scientific Research and Innovation Support Fund/Ministry of Higher Education & Scientific Research/Jordan, she served as member of the Board of trustees of Al Al-Bayt University-Jordan, and an EU Higher Education Reform Expert (HEREs). Prof. Malkawi has held several administrative positions: Vice President for Research & International Relations at Yarmouk University, Dean of Scientific Research & Graduate Studies, Director of UNESCO Chair for Desert Studies, Director of Foreign Projects Management Unit, Director of Center of Excellence for Jordanian Public University Libraries, Vice-Dean and Assistant Dean of Faculty of Sciences. She served also as Vice President for Science Engagement at Royal Scientific Society-Jordan. Dean for Research & Doctoral studies at "Hamdan Bin Mohammad Smart University", Dubai, UAE.

Prof. Dr. Mohammed Hadi Al–Douh

Title of keynote speech: **"Some New Diazo Dye Derivatives: Synthesis, Computational and Biological Studies"**

Mohammed Hadi Al–Douh was born in Jeddah – Saudi Arabia in 1971. He received his BSc degree in Chemistry/Biology from Faculty of Science, Sana'a University, Sana'a, Rep. of Yemen in Jan. 1995. He received his MSc degree in organic chemistry with the title "Synthesis and Characterization of Some Barbituric Acid Derivatives *via* Schiff Bases" from College of Science, Babylon University, Babylon, Iraq in Sept. 2002, under the supervision of the Professors Ali A. Al–Fatlawy and Obaid H. Al–Shemmiry. In June 2005, he started his PhD degree in synthetic organic chemistry in School of Chemical Sciences, Universiti Sains Malaysia (USM), Pulau Penang – Malaysia, under the supervision of the Professors Hasnah Osman, Shafida Abd Hamid and Salizawati M. Salhimi. He received his PhD degree in Mar. 2011 with the title "Synthesis, Characterization and Anti–Proliferation Study of Some Benzimidazole Derivatives". In Jan. 2011, he employed as an assistance professor doctor of synthetic organic chemistry in Chemistry Department, Faculty of Science, Hadhramaut University (HU), Mukalla, Hadhramaut, Rep. of Yemen. From Oct. 2011 to Feb. 2012, he assigned a director general of the general administration of academic affairs, then he assigned a director general of strategic planning unit, from Feb. 2012 to Jan. 2013 in Hadhramaut University. He elected a president of the union committee, Faculty of Science, Hadhramaut University from Feb. 2013 to Sept. 2021. He worked in project as a post-doctoral research scientist from Sept. 2013 to Aug. 2014 in Chemistry Department, Kulliyyah of Science, International Islamic University Malaysia (IIUM), Kuantan, Pahang, Malaysia. In Feb. 2016, he assigned a Head of Chemistry Department, Faculty of Science, Hadhramaut University to April 2018. In Aug. 2016, he employed as an associate professor doctor of synthetic organic chemistry in Chemistry Department, Faculty of Science, Hadhramaut University. In March 2017, he assigned an executive vice manager in PCB Research Laboratory, Faculty of Science, Hadhramaut University to April 2018. In Nov. 2021, he assigned a Vice Dean for Academic Affairs, Faculty of Science, Hadhramaut University to Oct. 2022. In Dec. 2021, he employed as a full professor doctor of synthetic organic chemistry in Chemistry Department, Faculty of Science, Hadhramaut University. He published more than 60 papers, and his research interests include synthesis new organic compounds, Natural products, 1D and 2D NMR spectroscopy, X–ray crystallography, computational, medicinal and pharmaceutical chemistry.

Prof. Dr. Fahd Abdelhameed Alsharjabi

Title of keynote speech: ***"Breast milk and infant formulas".***

Department of Applied Microbiology, Faculty of Applied Sciences, Taiz University, Taiz, Yemen.
Field of Specialization: Food Science.

Academic Qualification:

Ph.D, Food Science and Technology, 2005, Assiut University, Egypt.
Thesis Title: Biochemical and Nutritional Studies on Some Oil Seeds.
M.Sc., Food Science and Technology, 2000, Assiut University, Egypt.
Thesis Title: Chemical and Bacteriological Studies on Fermented Sausages.
B.Sc., Food Technology, 1993, Baghdad University, Iraq.

Academic Positions Held:

Professor in Department of Applied Microbiology, Faculty of Applied Sciences, Taiz University, Yemen, from 11/2018 until now.

• Associate Professor in Department of Applied Microbiology, Faculty of Applied Sciences, Taiz University, Yemen, 12/2010 - 11/2018.

• Assistant Professor in Department of Applied Microbiology, Faculty of Applied Sciences, Taiz University, Yemen, 7/2005 - 11/2010.

• Instructor, Department of Biology, Faculty of Science, Taiz University, Yemen, 11/1996 - 12/1997.

Research Interests:

A food Science researcher with experience in food microbiology, food safetyand human nutrition.

Dr. Mohammed Hail Hakimi

Title of keynote speech: ***"Unconventional oil shale and shale oil: Case studies from Yemen, Russia, Jordan and India"***

Mohammed Hail Hakimi, Associate Professor with Taiz University. He received the Doctor of Philosophy degree in Petroleum geology and geochemistry from Malaya University (UM), Malaysia, in 2011, and got an excellent award, for outstanding achievement in the category of PhD Completion Period in less than three years. He received the Master of Science degree in Petroleum reservoir from King Abdul Aziz University, Saudi Arabia, in 2004 and got excellent award for outstanding achievement in the category of M.Sc Completion Period. He has worked as a Postdoctoral Researcher Fellow with Malaya University (UM), Malaysia for one year. He was a recipient of several research grants from the Malaysian Ministry of Science, and UM research grants. He has authored or coauthored over (140) ISI and SCOPUS published journal; (33) conference proceeding on various topics related to source rock, biomarker, oil properties, reservoir, well log analysis with one the best oral presentation. Thus far, his publications have been cited 3026 times and his H-index is 32 (Source: Google Scholar) and 30 (Source: SCOPUS). His research interests include petroleum Geology (Petroleum system analysis, Basin modeling), Petroleum Geochemistry (Source rock evaluation, thermal maturity assessment, kerogen typing, oil-generating potential of organic-rich sediments & coals & coaly sediments, Biomarkers of source rocks and oils; Biomarkers) and Reservoir characteristics (conventional and unconventional reservoir rocks). He got an excellent research award 2012, For outstanding achievement in the category of research and publication. Ceremony of Postgraduate students and Academic staff, Taiz University, Taiz City, Yemen 2012. He is appointed as reviewer to evaluate papers to be published in several journals in Elsevier B.V. (Sciencedirect), Springer and other journals. Currently, He is affiliated as a Senior Research Fellow (part time) with the Department of Petroleum Engineering, Kazan Federal University (KFU), Russia.

Dr. Samir Salem Al-Bawri

Title of keynote speech: **"Metamaterial based Antennas for 5G Technology and Beyond"**

Samir Salem Al-Bawri, Assistant Professor with Hadhramaut University (HU). He received the Master of Science degree in wireless communication engineering from Yarmouk University, Jordan, in 2009, and the Doctor of Philosophy degree in communication engineering from Universiti Malaysia Perlis (UniMAP), Malaysia, in 2018. He worked as a Graduate Research Assistance with UniMAP, from 2015 to 2018. He has worked as a Postdoctoral Researcher Fellow with Multimedia University (MMU), Cyberjaya, Malaysia, for one year. He is currently affiliated as a Senior Lecturer/Research Fellow with the Center for Space Science, Institute of Climate Change, Universiti Kebangsaan Malaysia (UKM). He has authored or co-authored over (37) ISI and SCOPUS published journal; (35) conference proceeding on various topics related to antennas, microwaves, and electromagnetic radiation analysis with one inventory patent as well as a chapter book. Thus far, his publications have been cited more than 300 times and his H-index is 11 (Source: Google Scholar). He was a recipient of more than 5 research grants from the Ministry of Education, Malaysia, UKM Research Grant, and upcoming International Research Grant from China, and Saudi Arabia. He is currently main/co supervisor of 3 Ph.D., and 2 M.Sc. students. His research interests include design and evaluation of multi-element antennas, metamaterials, electromagnetic radiation analysis, localization estimation techniques, and wireless propagation. He was a recipient of the Gold Medal Award at the Breakthrough Invention, Innovation & Design Exhibition Biide2019—UiTM. He was also a recipient of two Gold Medals Award at the Research Innovation Commercialization and Entrepreneurship Showcase (RICES) 2021, MMU. Currently, he serves as the Editor Manager for Hadhramaut University Journal of Natural and Applied Science (NAS journal) and International Journal of Multidisciplinary Sciences and Advanced Technology (IJMSAT).

Dr. Salahuddin Almohammadi, Group IT Manager - HSA Group, Headquarters, UAE, Dubai

Qualifications:

- Bachelor of Computer Engineering (1986 – 1992), King Abdulaziz University, KSA.
- Master of Business Administration (2002 – 2004), Arab Academy of Science, Technology, Maritime Transport, Egypt.
- PhD Business Administration and Management (2013 – 2018), Almadenah International University, Malaysia.

He has deep experience in Information Technology since 1994, in Knowledge Management since 2003, in Professional Training since 2004, in Project Management since 2007 and in Digital Transformation since 2018.

He got many awards, international certifications and licences.

He is currently as Group IT Manager and leading Digital Transformation Strategy for HSA Group.

Dr. Abdulaziz Alwan Awn

Title of keynote speech: "***Approaches of some laws of physics for the human sciences***"

Assistant professor of physics, Department of Physics, Faculty of Applied Science, Taiz University.

General specialization: Solid State Physics.

Special Field: Physics of Semiconductors.

Qualifications:

- Degree of Doctor of Philosophy (2010) in Solid State Physics (Nonoferrite) from Kuvempo University- India.
- Degree of Master of science (2000) in Physics from Pune University - India
- Degree of Bachelor of Education (1987) in Physics from Faculty of Education, University of Sana'a.

Academic positions:

- Head of Physics Department, Faculty of Education, Taiz University (2017-2019).
- Head of Physics Department, Faculty of Education, Arts and Sciences, Alturba Branch (2014-2016).

Other contributions: Member of the Yemeni Writers Union, Taiz.

Dr. Mohammed Saleh Salim Al-kasadi.

Associate professor at Dept. Finance and banking- Faculty of Administrative Science-Hadhramout University, Mukalla- Yemen.

Title of keynote speech: **The Yemen economy dual economy**

M.S.S.Alkasadi born in Alddis –Hadhramout in 1972, get the BSc in finance and banking from Aden University faculty of administration and economic in 1999, MSc from Al al –bayt University finance and banking in 2007 Jordan , otherwise MCs Universidad de Murcia in 2011 Spain, Get a PhD from Politécnica Universidad de Valencia 2014 Spain.

Published 19 articles in both language English and Arabic, Authors two books in Arabic and two chapters in English with others authors. Position hold until now Head of dept. of finance and banking at faculty of administrative science at Hadhramaut University also, head of syndicate members of teachers and assistant of Hadhramout University, also head of dept. economic affair at Al. marfa center for studies and strategics members of the board directors Benevolent fund for outstanding student,also at council of acadmic at Hadhramout University ,also at presidential council Hadhramout University, Inistituto Matematica Multidisciplinar. IMM.UPV.ES. Member at committee of tested acadmic at Hadhramout University,also committee of developers of Hadhramout coastal cities, consultants at Smeps small& micro enterprise, interested in research financial market and mathematical model.

Dr. Warda Ahmed Saeed Al-Mohamadi

Department of Educational Sciences, Faculty of Education, Hadhramaut University, Mukalla, Hadhramaut.
Field of Specialization: Educational Administration.

Title of keynote speech: "**Design E-Learning Courses in Higher Education Institutions in Light of International Accreditation Standards**".

Academic Qualification:

PhD, Educational Administration, 2020, Holy Quraan and Islamic Sciences University, Sudan.
Thesis Title: A Suggested Proposal for Application of Governance Systems in Higher Education Institutions in Yemen in Light of Total Quality.
M.A., *Educational Administration*, 2014, *Faculty of Education, Hadhramaut University.*
Thesis Title: Requirements of Applying in Hadhramaut University from the Point of View of Teaching Staff and Administration of the University
B.A., English Language, 2008, *Faculty of Education,* Science and Technology University, Sanaa.

Academic Positions Held

- Director of the Quality Assurance Department in the Academic Development Center and Quality Assurance in the University of Hadhramaut from July 2017 until now.
- Lecturer in the College of Education, *Hadhramaut University.*

Research Interests: Quality assurance researcher with experience in Developing and Evaluating programs.

Gruntovich Nikolai Vasilievich - Doctor of Technical Sciences, Professor, Captain of the 1st rank, graduated from the Sevastopol Higher Naval Engineering School (1966), the Naval Orders of Lenin and Ushakov Academy. Admiral N.G. Kuznetsova (1976), Head of the Department of ACS for Nuclear Power Plants of the Sevastopol Higher Naval Engineering School (1985-1994). He was awarded an order and nine medals.

Candidate of Technical Sciences (1982), Associate Professor (1984), Doctor of Technical Sciences (1994), Professor (1994).). In 1990, Nikolai Vasilyevich substantiated and opened the specialty "Technical Diagnostics of Nuclear Power Plants" in the system of naval higher educational institutions. In 1994, he actively began to introduce advanced diagnostic technologies into the energy complex of Belarus. From 1994 to 1998, he worked as the head of the technical diagnostics laboratory of JSC Belenergoremnaladka, deputy general director for science of the SSTP DIECOS (1998-1999), head of the branch scientific and technical center for energy saving and diagnostics of JSC Belgorkhimprom (1999-2008). Since 2008 he has been working as a professor at the EE “PTU im. P.O Sukhoi.

In 2013, he published a textbook "Installation, adjustment and operation of electrical equipment", where 80% of the material is innovative and is devoted to the issues of technical diagnostics of power equipment. The textbook was republished in 2015, 2017, 2019. He has over 150 scientific papers, six copyright certificates for inventions. Nikolai Vasilyevich is a leading specialist in the field of vibration diagnostics in Belarus, has a level III certificate of competence in the vibration diagnostic method of non-destructive testing in accordance with the requirements of STB EN 473-2011 dated May 24, 2017 No. BY / 112 09.01. 072 05085.

Actively introduces advanced diagnostic technologies into the energy complex of Belarus, while simultaneously doing scientific research in this direction: in 2018, Gruntovich N.V. supervised two contractual research projects with RUE "Gomelenergo" on the subject of complex technical diagnostics of high-voltage electrical machines and power transformers. In 2014, he was the head of the subprogram "Development of a methodology for diagnosing and predicting the technical condition of electric motors and oil-filled transformers according to a set of parameters for organizing repairs according to the actual state" of the State Scientific Research Program for 2014-2015 "Energy Safety, Energy Efficiency and Energy Saving, Nuclear Energy" . In 2016, he led a task commissioned by the Ministry of Agriculture of the Russian Federation “Improving the efficiency of the technical operation of cars and tractors in the agricultural sector of the Russian Federation by improving the diagnostic system.” In the competition "For the successful implementation of innovations in agriculture" of the Russian agro-industrial exhibition "Golden Autumn - 2016", the work "Method of complex technical diagnostics of diesel engines to increase reliability and durability" was awarded the VDNKh silver medal. In 2018, a patent of the Russian Federation was obtained for a method for determining the technical condition of injectors on a running engine. No. 2667738 dated September 24, 2018. In 2017-2018, he was the responsible executor of two tasks of the SPNI "Energy Safety and Reliability of Energy Systems" of the Scientific Council "Energy Systems, Processes and Technologies" for 2016-2020: "Development of a methodology predicting the service life of rolling bearings before installation on a working mechanism "2017-2018. and "Development of a technique for restoring the technical condition and predicting failures of oil-filled transformers and autotransformers to increase the service life".

N. V. Gruntovich is an experienced teacher. He developed new lecture cour ses on diagnostics and non-destructive testing methods of the specialty 1-43 01 78 Diagnostics and maintenance of power equipment of organizations. Nikolai Vasilyevich actively supervises the preparation of undergraduates and graduate students.

OPENING CEREMONY & CONFERENCE PROGRAM OF 2nd ICTSA-2022

Saturday: 17th December, 2022 (8:00 – 12:00), Hail Saeed Hall

8:00 – 9:00	**Reception.**
9:00 – 9:05	National Anthems of Yemen and Belarus.
9:05 – 9:10	Quran Kareem.
9:10 – 9:20	Welcome Talk.
9:20– 9:25	Talk of Taiz Governor, **Mr. Nabeel Shamsan.**
9:25– 9:30	Talk of Rector of Taiz University, **Prof. Dr. Mohammed Alshoaibi**
9:30– 9:35	Talk of Rector of Suhkoi State Technical University, **Prof. Dr. Arthur Vladimirovich Postiata.**
9:35– 9:40	Talk of Vice- rector of Taiz University for Students Affairs, **Prof. Dr. Riyad Ahmed Alokab**.
9:40 –9:45	Talk of Vice- rector of Taiz University for Higher Studies and Scientific Research, **Prof. Dr. Sadeq Hassan Al-Shamiri**.
9:45– 9:50	Talk of Vice- rector of Suhkoi State Technical University for Research Affairs, **Prof. Dr. Andrei Andreiovich Boika.**
9:50– 9:55	Talk of The Secretary- general and Coordinator of Conference, **Prof. Dr. Niyazi A. S. Al-Areqi**.
9:55 – 10:25	Keynote speech entitled "***Biotechnological Applications of Microbes Adopted to Live in Extreme Environments»*** by **Prof. Dr. Hanan Issa Malkawi** from **Yarmouk University, Jordan**.
10:25– 10:55	Keynote speech entitled "***Vibration diagnostic of electric motor roller bearings***" by **Prof. Dr. Mikalay Hruntovich** from **Sukhoi State Technical University of Gomel**, **Belarus**.
10:55– 11:25	Keynote speech entitled "***Unconventional oil shale and shale oil: Case studies from Yemen, Russia, Jordan and India***" by **Associate Prof. Dr. Mohammed Hail Hakimi,** from **Taiz University**, **Yemen**.
11:30– 12:00	Coffee Break

Saturday: 17th December 2022 (12:00 – 15:30), Center of Graduate Studies (CGS), Hall No. (1)

Track (1): Medicine & Biomedical Sciences.
Track (2): Biological Sciences & Biotechnology.
Track (3): Earth & Environmental Sciences.

Chaired by
- **Dr. Nageeb Alshorgani**

Co-chaired by
- **Dr. Abdul- Hamid Malik**
- **Dr. Anisa S. Al Hakimi**

12:00 – 12:30	Keynote speech entitled ***"Breast milk and infant formulas"*** by **Prof. Dr. Fahd Abdelhameed Alsharjabi** from **Taiz University, Yemen.**
12:30 – 12:40	**[106]** ***The role of alleviate oxidative stress of oxytocin in the neurodegenerative disorders.*** **Hasan A. M. M. Almansoub[1]* and Rowdh Almansoob[2]** *[1]Department of Pathology, Faculty of Medicine, University of Saba Region, Marib, Yemen.* *[2]Department of Obstetrics & Gynecology, Faculty of Medicine & Health Sciences, Amran University, Amran, Yemen.*
12:40 – 12:50	**[2899]** ***The Prevalence of G6PD Deficiency and its Associated Factors Among National University Students in the Middle Province (Ibb City), Yemen.*** **Abdullah Abdulgabber Ahmed Al-alimi[1,2], Fikri Ahmed Moslh AL-sabahi[3] and Amen Faisal Ahmed Albaadani[3]** *[1]Postgraduate Center, Hodiedah University, Hodiedah, Yemen.* *[2]Department of Medical Laboratory, Faculty of Medical Sciences, Al-janad University for Technology and Science, Taiz, Yemen.* *[3]Department of Medical Laboratory Faculty of Medical Health Sciences, National University, Ibb, Yemen.*
12:50 – 13:00	**[4005]** ***Prevalence of Sickle Cell Trait Among School Students Males and Females in Taiz City, Yemen.*** **Abdullah AbdulGabbar Ahmed Al-alimi[1,2], Marwa Bassam[1], Afnan Abu Baker[1], Osama Lotf[1], Safia Ali Saad[1], Rofaida Ameen[1], Abrar Hassan[1], Akram Salah Al-Mugahles[1] and Galal F.Albani[3]** *[1]Department of Medical Laboratory, Faculty of Medical Sciences, Aljanad University for Technology and Science, Taiz, Yemen.* *[2]Postgraduate Center, Hodiedah University, Hodiedah, Yemen.* *[3]Department of Nursing, Faculty of Medical Health Science, Aljanad University for Science and Technology Taiz, Yemen.*
13:00 – 13:10	**[1242]** ***Protective Effect of ABO Blood Group Against Severe COVID-19 Infection: An Outcome of Hospital-Based Study in Taiz City, Yemen.*** **Bushra S. AL-Sharabi[1, *], Badria M. Abdel-Wasae[2], Najeeb K. AL-Shorgani[1]** *1Department of Microbiology, Faculty of Applied Sciences, Taiz University, Taiz, Yemen.* *[2]Department of Biology, of Applied Sciences, Taiz University, Taiz, Yemen.*

13:10 – 13:20	**[8720]** ***Effect of Khat (khat edulis) chewing on prolactin hormone levels and on body weight of infants.*** **Al-Athwari, Sh.*, Al-Sharaby, M., Al-Sanawi G., Al-Ameer A., Al-Sanawi A. and Al-Razy D.** *Department of Biology, Faculty of Applied Science, Taiz University, Taiz, Yemen.*
13:20 – 13:30	**[7143]** ***Study of Some Physicochemical Properties of Hot Springs Water in Shara'a and Kirsh, Lahj Governorate-Yemen.*** **Mohamed Muthana Taher[1], Shaif Mohammed Kasem Saleh[2*] and Maher Ali A. AlMansari[3]** *[1]Department of Chemistry, Faculty of Education-Al-Dhalia, University of Aden, Yemen.* *[2]Depratement of Chemistry, Faculty of Science, University of Aden – Yemen.* *[3]Depratement of Chemistry, Faculty of Education Radfan, University of Lahj – Yemen.*
13:30 – 14:30	Lunch Break
Chaired by ➢ **Dr. Abdul- Hamid Malik**	
Co-chaired by ➢ **Dr. Anisa S. Al Hakimi** ➢ **Dr. Nageeb Alshorgani**	
14:30 – 15:00	**[5746]** ***Synthesis, Characterization, DNA Interactions, Cleavage, Cytotoxic evaluation and Molecular modeling studies of Tin–based cancer chemotherapy drug as topoisomerase I inhibitor.*** **Waddhaah Mohammed Abdulgaleel Al-Asbahy[1,*], Moufeed K. A. Hassan[2] and Manal Mohammed[1]** *[1]Department of Chemistry, Faculty of Applied Sciences, Taiz University, Taiz, Yemen.* *[2]Department of Biology, Faculty of Applied Sciences, Taiz University, Taiz, Yemen.*
15:00 – 15:10	**[8288]** ***Impurity Analysis of Gentamicin Sulphate Injection Using Liquid Chromatography/Mass Spectrometry LC / MS.*** **Shaif Mohammed Kasem Saleh[1] ,Wafa Farooq Suleman Badulla[2,*] and Safa Fadhel Mohammed Al-Nawi[3]** *[1]Department of Chemistry, Faculty of Science, University of Aden, Yemen.* *[2]Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Aden, Yemen.* *[3]Department of Chemistry, Faculty of Education, University of Aden, Yemen.*
15:10 – 15:20	**[6766]** ***Extraction, characteristic of lipase enzymes & medical, industrial application from bacillus cereus (MS6).*** **Mohammed Mohammed Abdu Alzazaee** *Department of Laboratory, Medical Collage, National University, Taiz, Yemen.*

Saturday: 17th December, 2022 (12:00 – 15:30), Center of Graduate Studies (CGS), Hall No. (2)

Track (4): Electrical & Mechatronics.
Track (5): Computer Science & Information Technology.
Track (6): Mathematical & Physical Sciences.

Chaired by
- **Dr. Marwan A. A. S. Al Maktary**

Co-chaired by
- **Dr. Mohammed Ahmed Alkateeb**
- **Dr. Abdulaziz Alwan Awn**

12:00 – 12:30	Keynote speech entitled ***"Approaches of some laws of physics for the human sciences"*** by **Assist. Prof. Dr. Abdulaziz Alwan Awn** from **Taiz University, Yemen.**
12:30 – 12:40	**[1166]** ***Hybrid Optimization Based on Spectrum aware Opportunistic Routing for Cognitive Radio Ad Hoc Networks.*** **Hesham Mohammed Ali Abdullah[1] and A.V. Senthil Kumar[2]** *[1]Al-Saeed Faculty for Engineering and Information Technology, Taiz University, Taiz, Yemen.* *[2]PG and Research Department of Computer Applications, Hindusthan College of Arts & Science, Coimbatore, India.*
12:40 – 12:50	**[1670]** ***Open-Source Software and Hardware for Design and Development of UAVs: Demonstration with Case Study.*** **Eiad Saif[1,*] and İlyas Eminoğlu[2]** *[1]Department of Computer and Electronic Engineering*, Sana'a Community College, Sana'a, Yemen. *[2]Department of Electrical and Electronic Engineering Ondokuz Mayis University, Samsun, Turkey.*
12:50 – 13:00	**[6579]** ***Drone Detection System Using Artificial Intelligence and Computer Vision.*** **Ghazi H. Alnowaini, Osaid S. Qasem*, Asim Ameen and Abdullkareem Abdulljaleel** *Department of Mechatronics Engineering, Taiz University, Taiz, Yemen.*
13:00 – 13:10	**[546]** ***Structural and Optical properties of CdSeGe amorphous films.*** **Ebrahim M. Abuassag[1], A. M. Al-Rebati[1], M. A. Dabban[2] Mohammed M. H. Al-Awadhi[3]** *[1]Physics Department, Faculty of Science and Education, Saba Region University, Marib, Yemen.* *[2]Physics Department, Faculty of Science, University of Aden, Aden, Yemen.* *[3]Chemistry Department, Faculty of Science and Education, Saba Region University, Marib, Yemen.*
13:10 – 13:20	**[2050]** ***Inverse domination in some operations on interval valued fuzzy graphs.*** **Ahmed N. Shain *, Mahiuob M.Q. Shubatah, Yahya Qaid Hasan and Saqr H. Al-Emrany**

	Department of Mathematics, Faculty of Education and Science, Sheba Region University, Marib, Yemen.
13:20 – 13:30	**[5205]** ***Folding Model Analysis of Elastic and Inelastic Scattering of (11B + 12 C) Reaction in Energies (28 – 100) MeV.*** **M. I. Ahmed[1, 2,*]** *[1]Physics Department, Faculty of Science, Assiut University, Assiut 71516, Egypt.* *[2]Physics Department, Faculty of Education, Zinjebar, Abyan University, Yemen.*
13:30 – 14:30	Lunch Break
Chaired by ➢ **Dr. Marwan A. A. S. Al Maktary**	
Co-chaired by ➢ **Dr. Abdulaziz Alwan Awn** ➢ **Dr. Mohammed Ahmed Alkateeb**	
14:30 – 15:00	Keynote speech entitled ***"Metamaterial based Antennas for 5G Technology and Beyond"*** by **Assist. Prof. Dr. Samir Salem Al-Bawri** from **Hadhramaut University, Yemen.**
15:00 – 15:10	**[4471]** ***A Systematic Review of Current Deep Learning Approaches Used to Predict Semantic Similarity in Social Media.*** **Abdullah Ahmed Esmaeel[*], Abdullah Saeed Ghareb and Abdulaziz Ahmed Thawaba** *Faculty of IT&CS, University of Saba Region, Marib, Yemen.*
15:10 – 15:20	**[459]** ***On Generalization Property of I^s- Open Sets in Ideal Topological Semigroups.*** **Amin Saif[1,*] and Abdo Q. M. Alrefai[2]** *[1]Department of Mathematics, Faculty of Sciences, Taiz University, Taiz, Yemen.* *[2]Department of Mathematics, Faculty of Education and Science, University of Saba Region, Marib, Yemen.*
15:20 – 15:30	**[6946]** ***The Effect of Changing Q-factor on the Stability Response of Active-R Filter using Op-amps.*** **Adnan Abdullah Qasem[1,*] and G.N. Shinde[2]** *[1]Department of Physics, University of Saba Region, Marib, Yemen.* *[2]School of Physics, S. R. T. M. University, Nanded, India.*

Saturday: 17th December, 2022 (12:00 – 15:30), Center of Graduate Studies (CGS), Hall No. (3)

Track (7): Chemical Sciences & Industrial Issues.

Chaired by

- **Dr. Mohamed H. M. Alhousami**

Co-chaired by

- **Dr. Abdulqawi A. Numan**
- **Dr. Huda Abdul Rehman Abdul Wahed**

12:00 – 12:30	Keynote speech entitled " ***Some New Diazo Dye Derivatives: Synthesis, Computational and Biological Studies***" by **Prof. Dr. Prof. Dr. Mohammed Hadi Al–Douh** from **Hadhramaut University, Yemen**.
12:30 – 12:40	**[3516]** ***Study of the effects of alkalinity (NaOH) and over potential on The Electrochemical Production of Sodium Hypochlorite (NaOCl) using a batch mode electrolytic cell.*** **Etehad Fisal[*] and Niyazi A. S. Al-Areqi** *Department of Chemistry, Faculty of Applied Science, Taiz University, Taiz, Yemen.*
12:40 – 12:50	**[1859]** ***Perovskite Solar Cells (PSCs): Definition, Structure, and Solar Cells Development.*** **Fuad Saleh[1,2], Zakarya A.M. Hazaea[1,2,*], Ammar Ghaleb[1] and Farida Murshed[3]** *[1]Department of Industrial Chemistry, Faculty of Applied Science, Taiz University, Taiz Yemen.* *[2]Department of Chemistry, Faculty of Science, Chulalongkorn University, Bangkok, Thailand.* *[3]Department of Management Information Systems, Faculty of Administrative Science, Taiz University, Taiz Yemen.*
12:50 – 13:00	**[9767]** ***Study of physiochemical properties of sodium dodecyl sulphate surfactant: it's micellization, oil in water emulsification and industrial applications.*** **Dina Murshed[1], Fuad Saleh[2], Nermeen Al-Absi[3] and Niyazi A. S. Al-Areqi[1]** *[1]Department of Chemistry, Faculty of Applied Sciences, Taiz University, Taiz, Yemen.* *[2]Department of Chemistry, Faculty of Sciences, Chulalongkorn University, Thailand.* *[3]Department of Industrial Chemistry, Faculty of Applied Sciences, Taiz University, Taiz, Yemen.*
13:00 – 13:10	**[4306]** ***The Treasures of Printed Circuit Boards in Cell Phone Scrap and The Dangers of Concern.*** **Fekri Mohammed Mohammed Noaman [1], Mohammed Suleiman Ali Eltoum[2]** *[1]155Street 6,block 6, Salmiya, Kuwait.* *[2]Chemistry Department, College of Sciences and Technology, Khartoum, Sudan.*
13:10 – 13:20	**[5542]** ***Elemental Analysis of Some Vegetables Cultivated in Delta Tuban, Lahej Governorate -Yemen.***

	Adel A. M. Saeed[*,1], Mubarak S. M. Bazuqamah[2], & Othman S. S. Al-Hoshabi[3] *[1]Department of Chemistry, Faculty of Science, University of Aden, Aden, Yemen.* *[2]Department of Chemistry, Faculty of Zungobaar Education, University of Abyan, Abyan, Yemen.* *[3]Department of Life Sciences, Faculty of Science, University of Aden, Aden, Yemen.*
13:20 – 13:30	**[5885] *Biosynthesis of ZnO nanoparticles using aqueous extract of propolis: characterization and antimicrobial activity.*** **Samir Osman M.[1,2], Mohyeddine Al-qubati[2,3], Mansour S.Abdul Galil[4,5], Abdulqawi N.[4,6], Mohammed A. Algradee[1], Abdelwahab Alwan[1] and Mohammed Sultan A.[1]** *[1]Physics Department, Science College, Ibb University, Ibb, Yemen.* *[2]Engineering Faculty, Aljanad University for Science & Technology, Taiz, Yemen.* *[3]Physics Department, Science College, Taiz University, Taiz, Yemen.* *[4]Faculty of Medical Sciences, Aljanad University for Science & Technology, Taiz, Yemen.* *[5]Chemistry Department, Faculty of Applied Sciences, Taiz University, Taiz, Yemen.* *[6]Chemistry Department, Science College, Sana'a University, Sana'a, Yemen.*
13:30 – 14:30	Lunch Break
Chaired by ➢ **Dr. Abdulqawi A. Numan**	
Co-chaired by ➢ **Dr. Mohamed H. M. Alhousami** ➢ **Dr. Eshraq Ahmed Alawi**	
14:30 – 15:00	**[7882] *Thermal Treatment of Natural Carbonate Catalyst for Biodiesel Production from Yemeni Jatropha Oil.*** **Rokhsana Mohammed Ismail[1,2,*] and Amal Mohammed Ahmed[3]** *[1]Director-Science and Technology Center, University of Aden, Aden, Yemen.* *[2]Chemistry Dept., Faculty of Education- Saber, University of Aden, Aden, Yemen.* *[3]Chemistry Dept., Faculty of Science, University of Aden, Aden, Yemen.*
15:00 – 15:10	**[3258] *Benefits of recycling lithium-ion batteries in mobile phones.*** **Mohammad Soliman[1] and Fekri Mohammad Mohammad Noaman Al-Braihi[2]** *[1]Chemistry Department, College of Sciences and Technology, Khartoum, Sudan.* *[2]155Street 6,block6,Salmiya, Kuwait.*
15:10 – 15:20	**[4053] *Study on Phase stability of Mn(IV) doped bismuth vanadate and its visible- light photocatalytic activity for degradation of organic dye.*** **Najwa Obaid[*], Niyazi A. S. Al–Areqi** *Department of Chemistry, Faculty of Applied Science, Taiz University, Taiz, Yemen.*
15:20 – 15:30	**[4479] *Iron (ll)-Catalyzed Transformation of Unsaturated hydrocarbons to secondary alcohols as intermediate fine chemicals under the aerobic conditions.*** **Ahmed M. Senan[1,*], Dina Murshed[2], Niyazi A. S. Al-Ariqi[2], Senem Akkoç[1]** *[1]Department of Basic Pharmaceutical Sciences, Faculty of Pharmacy, Suleyman Demirel University, 32260, Isparta, Turkey.* *[2]Department of Chemistry, Faculty of Science, Taiz University, Taiz, Yemen.*

Saturday: 17th December, 2022 (12:00 – 15:40), Center of Graduate Studies (CGS), Hall No. (4)

Track (8): Administrative Sciences.
Track (9): Learning Technologies & Educational Management.

Chaired by ➢ **Dr. Gamal Ahmed Alawi**	
Co-chaired by ➢ **Dr. Fatihya Al- Omeri** ➢ **Dr. Khalid Al-Shamiri**	
12:00 – 12:30	Keynote speech entitled "***Design E-Learning Courses in Higher Education Institutions in Light of International Accreditation Standards*** " by **Associate Prof. Dr. Warda Ahmed Saeed Al-Mohamadi** from **Hadhramaut University, Yemen**.
12:30 – 12:40	**[223] *استخدام الشبكات العصبية الاصطناعية في المراجعة الخارجية والمحاسبة.*** **نعمان، هيثم أمين محمد محمد** *قسم المحاسبة، كلية العلوم الادارية، جامعة اب، اب، اليمن.*
12:40 – 12:50	**[1505] *الشمول المالي- مفاهيم ومؤشرات عربية وعالمية: دراسة نظرية.*** **هنادي النجار** *قسم المحاسبة، كلية العلوم الإدارية والمالي، جامعة إقليم سبأ، مأرب، اليمن.*
12:50 – 13:00	**[1903] *المهارات الحياتية المضمنة في كتاب الاحياء للصف الاول الثانوي بالجمهورية اليمنية.*** **إشراق هائل الحكيمي** قسم المناهج وطرائق تدريس العلوم، كلية التربية ، جامعة تعز ، اليمن.
13:00 – 13:10	**[6424] *Total Productivity Growth in the Private Universities in Republic of Yemen Using Malmquist Productivity Index.*** **Akram Sufian Mohammed Budair** *Department of Projects, Ministry of Education, Taiz, Yemen.*
13:10 – 13:20	**[1528] *الاحتياجات التدريبية لإدارات مدارس التعليم العام ومكاتب التربية والتعليم بمحافظة تعز أثناء الأزمات.*** **رشاد سعيد قايد حسن مجلي** قسم العلوم التربوية، كلية التربية، جامعة تعز، تعز، اليمن.
13:20 – 13:30	**[1430] *معوقات تطبيق الإدارة الإستراتيجية في جامعة عدن دراسة ميدانية - لآراء عينة من القيادات العليا بالجامعة.*** **لبيب محمد نعمان قاسم** *قسم ادارة الاعمال، كلية العلوم الإدارية، جامعة عدن، عدن، اليمن.*
13:30 – 14:30	Lunch Break

Chaired by ➢ **Dr. Abdulmalik Hazaber**	
Co-chaired by ➢ **Dr. Gamal Ahmed Alawi** ➢ **Dr. Fatihya Al- Omeri**	
14:30 – 15:00	Keynote speech entitled "***Unknown***" by **Dr. Salahuddin Almohammadi,** from **Group IT Manager - HSA Group, Headquarters, Dubai, UAE**.
15:00 – 15:10	**[5837] *إدارة أزمة النشاط السياحي في محافظة تعز(السُّبل والآليات).*** **هشام محمد غالب سعيد[1،2]** *[1]قسم الإدارة الدولية، كلية العلوم الإدارية والإنسانية، جامعة الجند للعلوم والتكنولوجيا، تعز، اليمن.* *[2]قسم الإدارة الدولية، كلية المال والأعمال، جامعة الرواد، تعز، اليمن.*
15:10 – 15:20	**[7462] *أهمية تطبيق مراجعة النظير في تحسين جودة التدقيق الخارجي :دارسة ميدانية من وجهة نظر المدققين في مكاتب التدقيق في أمانة العاصمة – صنعاء.*** **طارق أحمد عبده الجماعي** قسم المحاسبة، كلية العلوم الإدارية والمالية، جامعة إقليم سبأ، اليمن.
15:20 – 15:30	**[5307] *دراسة قياسية لأثر عرض النقود على بعض متغيرات الاقتصاد الكلي في الجمهورية اليمنية للفترة (1990 – 2017م).*** **يحيى عبد الغفار، عدنان ثابت*** *قسم الاقتصاد، كلية العلوم الإدارية، جامعة تعز، تعز، اليمن.*
15:30 – 15:40	**[9874] *استخدام نظم الخبرة في المحاسبة والمراجعة الخارجية.*** **نعمان، هيثم أمين محمد محمد** *قسم المحاسبة، كلية العلوم الادارية، جامعة اب، اب، اليمن.*

Sunday: 18th December, 2022 (10:00 – 13:30), Center of Graduate Studies (CGS), Hall No. (1)

Track (1): Medicine & Biomedical Sciences.
Track (2): Biological Sciences & Biotechnology.
Track (3): Earth & Environmental Sciences.

Chaired by
- **Prof Dr. Fahd Abdelhameed Alsharjabi**

Co-chaired by
- **Dr. Abdul- Hamid Malik**
- **Dr. Nageeb Alshorgani**

10:00 – 10:10	**[9822]** ***A Comparative Cross-sectional Study on the Low Birth Weight and its Associated Risk Factors among Newborns at Taiz City (Yemen).*** **Mujeeb A. Sultan[1*] and Assmaa A.Alsamae[2]** *[1]Department of Pharmacy, Faculty of Medical Sciences, Aljanad University for Science and Technology, Taiz, Yemen.* *[2]Department of Therapeutic Nutrition, Faculty of Medical Sciences, Aljanad University for Science and Technology, Taiz, Yemen.*
10:10 – 10:20	**[6102]** ***Comparison of Different Number of Beams in Intensity Modulated Radiotherapy in Head and Neck Cancer.*** **Khaled Saeed Sallam Saeed[1,*], Mostafa Aly El Naggar[2], Sohir Mahmoud El Kholy[2], Fatma Nasr[2] and Walla Taman[3]** *[1]Faculty of Medicine and Heath Sciences, Taiz University, Taiz, Yemen.* *[2]Faculty of Medicine, Alexandria University, Alexandria, Egypt.* *[3]Ayadi Al Mostakbal Oncology Center, Alexandria, Egypt.*
10:20 – 10:30	**[2449]** ***Fluoride removal from aqueous solution by phosphoric acid-crushed limestone treatment.*** **Shaif Mohammed Kasem Saleh[1*], Radhwan Mohammed Saleh[2*] and Amal Hasen[2]** *[1]Department of Chemistry, Faculty of Science, University of Aden, Yemen.* *[2]Department of Chemistry, Faculty of Education-Saber University of Lahj, Yemen.*
10:30– 11:00	**[9075]** ***Preliminary Geophysical Investigations of Geothermal Energy Resources Below the Volcanic Plateau and Surroundings, Western Yemen.*** **Amin Noman Al Kadasi** *Department of Geology, Faculty of Applied Science, Taiz University, Taiz, Yemen.*
11:00– 11:30	Coffee Break

Chaired by ➢ **Dr. Nageeb Alshorgani**	
Co-chaired by ➢ **Dr. Abdul- Hamid Malik** ➢ **Dr. Anisa S. Al Hakimi**	
11:30 – 12:00	**[9578]** ***Prevalence of Trichomoniasis among Reproductive-aged Women in Taiz city, Yemen.*** **Mohammed Abdo Al-Taj[1,*], Sameera Al-khulaidi[2], Salwa Abdullah Al-Dubaii[3]** *[1]Department. of Biology, Faculty of Applied Science, Taiz University, Taiz, Yemen.* *[2]Department of Obstetrics and Gynecology, College of Medicine and Health Sciences, Taiz University, Taiz, Yemen.* *[3]Department of Microbiology, Faculty of Applied Science, Taiz University, Taiz, Yemen.*
12:00 – 12:10	**[1496]** ***التأثير المشترك لعلاج الإنترفيرون ألفا 2 ب أثناء تحضيره مع فيتامينات C و E على مسار السارس والإنفلونزا في الطفولة*** **جمال بلالة[1]، جعفر سعيد[1]، مراد سيف[2]** *[1]Gomel State Medical University, Gomel, Belarus.* *[2]Belarusian State University of Informatics and Radioelectronics Gomel, Belarus.*
13:30 – 14:30	Lunch Break

Sunday: 18th December, 2022 (10:00 – 13:30), Center of Graduate Studies (CGS), Hall No. (2)

Track (4): Electrical & Mechatronics.
Track (5): Computer Science & Information Technology.
Track (6): Mathematical & Physical Sciences.

Chaired by ➢ **Dr. Marwan A. A. S. Al Maktary**	
Co-chaired by ➢ **Dr. Abdulaziz Alwan Awn** ➢ **Dr. Mohammed Ahmed Alkateeb**	
10:00 – 10:10	**[9015]** ***Reducing the Risk of Forgotten Long Secret Key.*** **Saleh Noman Alassali[1] and Mohammed Mokred Nagi[2]** *[1]Department of Computer Science, Faculty of computer and Technology, Sheba Region University, Marib, Yemen.* *[2]Department of Computer Information system, Faculty of Al-Jawf, Sheba Region University, Marib, Yemen.*
10:10 – 10:20	**[4984]** ***Three hash functions comparison on digital Holy Quran intgerity verification.*** **Hanan Salem Baqtian[1,*] and Naziha Mohammed Al-Aidroos[2]** *[1]Department of Information Technology, Ahgaff university, Hadhramaut, Yemen.* *[2]Computer Science Department, College of Computers and Information Technology Hadhramout University, Hadhramaut, Yemen.*
10:20 – 10:30	**[882]** ***Synthesis and study of structure, morphological and optical properties for TiO_2-Al_2O_3-La_2O_3 prepared by chemical bath deposition.*** **Sameerah S. S. Alqadasy[1,*], S. Q. Chishty[1], Hakim Q. N. M. Al-arique[2], Elyas Sadeq Al-Aghbari[2] and Niyazi A. S. Al-Areqi[2]** *[1]Department of Physics, Dr. Rafiq Zakaria College for Women, Dr. Babasaheb Ambedkar Marathwad University, Aurangabad-341004, Maharashtra, India.* *[2]Department of Chemistry, Taiz University, Taiz, Yemen.*
10:30– 11:00	**[2783]** ***Vacancy Defects in Carbon Nanotubes for Hydrogen Storage.*** **M. A. Al-Khateeb[1,2], A. A. El-Barbary[3,4], M. A. Kamel[4], Kh. M. Eid[4,5]** *[1]Physics Department, Faculty of Education and Science, Taiz University, Taiz, Yemen.* *[2]Medical Equipment Engineering Department, Faculty of Science and Engineering, Al - Rowad University, Taiz, Yemen.* *[3]Physics Department, Faculty of Science, Jazan University, Jazan, Saudi Arabia.* *[4]Physics Department, Faculty of Education, Ain Shams University, Cairo, Egypt.* *[5]Department of Physics, College of Science and Arts, Qassim University, Albukayriyah 52725, Saudi Arabia.*
11:00– 11:30	Coffee Break

Chaired by

- **Dr. Marwan A. A. S. Al Maktary**

Co-chaired by

- **Dr. Mohammed Ahmed Alkateeb**
- **Dr. Abdulaziz Alwan Awn**

11:30 – 12:00	**[9913]** ***Framework for Improving Traffic in Taiz City.*** **Ghazi H. Alnowaini, Hamza Abdalfatah, Bashar Abdo Hassan, Mohammed Abdulrahman, Abdulelah Abdulkhaleq and Shehab Ameen** *Department of Mechatronics Engineering, Taiz University, Taiz, Yemen.*
12:00 – 12:10	**[5031]** ***Security Administration for Data Warehouse.*** **Abdullah Saeed Ghareb[1], Abdulaziz Ahmed Thawaba[1], Abdulgabbar Saifa[1] and Mohammed Hamid Afif[2]** *[1]Faculty of IT&CS, University of Saba Region, Marib, Yemen.* *[2]Department of Management Information Systems, College of Business Administration, Brence Sattam bin Abdulaziz Prince Sattam Bin Abdulaziz university, KSA.*
12:10 – 12:20	**[6251]** ***On Coefficient Estimates for New Subclasses of q-BI- Spirallike Functions.*** **Read S. A. Qahtan** *College of engineering, Alrowad University. Taiz, Yemen.*
12:20 – 12:30	**[7519]** ***D-preconnected Sets in D-Metric Spaces.*** **Hussain Wahish[1, *], Amin Saif[1, 2]** *[1]Department of Mathematics,Faculty of Education, University of Saba Region, Mareb, Yemen.* *[2]Department of Mathematics, Faculty of Applied Sciences, Taiz University, Taiz, Yemen.*
12:30 – 12:40	**[7597]** ***Generation of generalized spiraling Bessel beams by the illumination of a curved fork-shaped hologram with a new type of hollow laser beams family.*** **Faroq Saad[1,2,*], Abdelmajid Belafhal[3]** *[1]Faculty of Engineering, Al-Janad University for Science & Technology, Taiz, Yemen* *[2]Technical community college, Taiz, Yemen.* *[3]Laboratory LPNAMME, Laser Physics Group, Department of Physics, Faculty of Sciences, Chouaïb Doukkali University, P. B 20, 24000 El Jadida, Morocco.*
12:40 – 12:50	**[5250] تقييم تأثير استخدام الميكروويف على الخصائص الفيزيائية لتجفيف لطوب الطيني مقارنة بالطرق التقليدية.** **سالم صلاح باجابر [1, *]،صبري محمد عبدهود[2] ،أحمد منصور سالمين [3]** *[1]قسم العلوم الهندسية، كلية المجتمع سيئون، حضرموت، اليمن.* *[2]قسم العلوم الحاسوبية، كلية المجتمع سيئون، حضرموت، اليمن.* *[3]قسم الاعلام والعلاقات العامة، كلية الآداب، جامعة حضرموت، حضرموت ، اليمن*
12:50 – 13: 00	**[2798]** ***Implications of Changing the Cd-Ge-Se Thin Film Thickness Deposited by Thermal Evaporation Technique on Structural and Optical Properties for Optoelectronic Applications.*** **Abdel-naser A. Alfaqeer[*], A.M. Al-Rebati and M. A. Dabban** *Physics Department, Faculty of Science and Education, Saba Region University, Marib, Yemen.*

13:10 – 13:20	**[7655]** ***Perfect Domination in Some Operations on Interval-Valued Fuzzy Graphs.*** **Faisal M. AL-Ahmadi*, Mahiuob M. Shubatah and Yahya Q. Hassan** *Department of Mathematics, Faculty of Education and Science, Sheba Region University, Marib, Yemen.*
13:30 – 14:30	Lunch Break

Sunday: 18th December, 2022 (10:00 – 13:30), Center of Graduate Studies (CGS), Hall No. (3)

Track (7): Chemical Sciences & Industrial Issues.

Chaired by

- **Dr. Huda Abdul Rehman Abdul Wahed**

Co-chaired by

- **Dr. Eshraq Ahmed Alawi**
- **Dr. Mohamed H. M. Alhousami**

10:00 – 10:10	**[8868]** ***Study of physiochemical properties of cetyl trimethyl ammonium bromide (CTAB) surfactant: its micellization, almond oil water emulsification and industrial applications.*** **Fahmiyah Kh.H.Ba-alawy*, Yasamin S.M.Alodainy and Niyazi A. S. Al-Areqi** *Department of Chemistry, Faculty of Applied Science, Taiz University, Taiz, Yemen.*
10:10 – 10:20	**[5324]** ***Investigation of formation of cold liver oil/water microemulsion in the presence of cetyltrimethylammonium bromide (CTAB) and lauryl alcohol (LA).*** **Sami Alnaqeeb[1,2,*], Sameh A.S. Alariqi[3], Niyazi A. S. Al-Areqi[2], Tariq.M.H.Abdulslam[2]** *[1]Department of Chemistry, Faculty of Applied Science, Taiz University, Taiz, Yemen.* *[2]Department of Pharmacy, Faculty of Medical & Health Sciences, Al-Saeed University, Taiz, Yemen.* *[3]Department of Industrial Chemistry, Faculty of Applied Science, Taiz University, Taiz, Yemen.*
10:20 – 10:30	**[3751]** ***Batch electrochemical production of sodium hypochlorite: pH change and influence of alkalinity.*** **Mohammed Abduljalil[1,*], Elyas Alaghbari[1], Redwan ali[1],Ziad Abdo[1],Akrm Ali[1],Riya Qaid Alansi[2] ,Niyazi A. S. Al-Areqi[1]** *[1]Department of Chemistry, Faculty of Applied Science, Taiz University, Taiz, Yemen.* *[2]Yemen Standardization, Metrology and Quality Control Organization (YSMO), Sana'a, Yemen.*
10:30– 11:00	**[4059]** ***Development of spectrophotometric method with enhanced sensitivity for the determination of nitrate contamination in vegetables.*** **Abdulqawi Numan[1,5,*], Mahfoudh Al-Hamadi[2], Anass Alnedhari[3], Shaif Saleh[4], Mansour Galil[1,5], Fares Ghaleb[2] and Sadam Alqadhi[5]** *[1]Pharmacy Dep., Faculty of Medical Sciences, AlJanad University for Science & Technology, Taiz, Yemen,* *[2]Chemistry Department, Faculty of Science, Sana'a University, Sana'a, Yemen.* *[3]Chemsitry Department, Faculty of Education, Khawlan Branch, Sana'a University, Sana'a, Yemen.* *[4]Chemsitry Depatment, Faculty of Science, Aden University, Aden, Yemen.* *[5]Department of Chemistry, Faculty of Applied Science, Taiz University, Taiz, Yemen.*
11:00– 11:30	Coffee Break

Chaired by ➢ **Dr. Mohamed H. M. Alhousami**	
Co-chaired by ➢ **Dr. Huda Abdul Rehman Abdul Wahed** ➢ **Dr. Eshraq Ahmed Alawi**	
11:30 – 12:00	**[8247]** ***Construction and performance characterization of ion selective electrodes for potentiometric determination of clindamycin and norfloxacin in pure forms and in pharmaceutical formulations.*** **Ali Abduh Mohammed Mutair[*] and Niyazi A. S. Al-Areqi** *Department of Chemistry, Faculty of Applied Science, Taiz University, Taiz, Yemen.*
12:00 – 12:10	**[4432]** ***Photocatalytic degradation of organic dyes in aqueous media under visible - light irradiation using Aurivillius - type BICRVOX catalysts: Development of new efficient photocatalysts for environmental applications.*** **Samar W.A.AL-Badani[*] , Afraah M.A. Alfaatesh , Niyazi A.S. Al– Areqi** *Department of Chemistry, Faculty of Applied Science, Taiz University, Taiz, Yemen.*
12:10 – 12:20	**[128]** ***Electronic display screens between the benefits and harms.*** **Fekri Mohammed Mohammed Noaman Al-Braihi[1,*] and Niyazi A. S. Al-Areqi[2]** *[1]55Street 6,block6,Salmiya, Kuwait.* *[2]Department of Chemistry, Faculty of Applied Science, Taiz University, Taiz, Yemen.*
13:30 – 14:30	Lunch Break

Sunday: 18th December , 2022 (10:00 – 13:30), Center of Graduate Studies (CGS), Hall No. (4)

Track (8): Administrative Sciences.
Track (9): Learning Technologies & Educational Management.

Chaired by ➢ **Dr. Abdulmalik Hazaber**	
Co-chaired by ➢ **Dr. Fatihya Al- Omeri** ➢ **Dr. Gamal Ahmed Alawi**	
10:00 – 10:10	**[1664] *الإعلان المصرفي من خلال المؤثرين على مواقع التواصل الاجتماعي وأثره في تعزيز الصورة الذهنية للبنك لدى العملاء: دراسة حالة بنك الكريمي، اليمن.*** **خالد حسن الحريري [1، *]، ليث جازم غالب [1،2]** *[1] قسم التسويق، كلية العلوم الإدارية، جامعة تعز، تعز، اليمن.* *[2] قسم التسويق، كلية العلوم الإدارية، جامعة تعز، تعز، اليمن.*
10:10 – 10:20	**[7452] *مقاربة فكرية منهجية حديثة لتطبيق نظام PPBES في تقويم الأداء المؤسسي في الجامعات اليمنية الأهلية.*** **نوال سالم صالح باقطيان[1،*]** *[1]قسم الإدارة الأعمال، كلية العلوم الإدارية، جامعة الجند، تعز، اليمن.*
10:20 – 10:30	**[2101] *التصورات البديلة في المفاهيم الكيميائية لدى خريجي المرحلة الثانوية بمدينة مأرب واتجاهاتهم نحو مادة الكيمياء.*** **محمد حسين أحمد خاتم** *قسم العلوم التربوية، كلية التربية والعلوم، جامعة أقليم سبأ، مأرب، اليمن.*
10:30– 11:00	**[1603] *دور المدرسة في تنمية قيم المواطنة لدى طلبة المرحلة الثانوية في الجمهورية اليمنية (دراسة ميدانية لمدارس مدينة تعز).*** **عارف محمد سيف أحمد الصامت[1،2]** *[1]مكتب التربية والتعليم، تعز، اليمن.* *[2]جامعة الحكمة، تعز، اليمن.*
11:00– 11:30	Coffee Break
Chaired by ➢ **Dr. Gamal Ahmed Alawi**	
Co-chaired by ➢ **Dr. Khalid Alshamiri** ➢ **Dr. Fatihya Al- Omeri**	
11:30 – 11:50	**[7414] *Technology Based Simulation Learning of Classroom Enhancing Students' Learning & Teachers' Practical Performance.*** **Gamal Alawi** *Department of Learning Technology, Faculty of Education, Taiz University, Taiz, Yemen.*
11:50 – 12:00	**[5307] *دراسة قياسية لأثر عرض النقود على بعض متغيرات الاقتصاد الكلي في الجمهورية اليمنية للفترة (1990 – 2017م).*** **يحيى عبد الغفار، عدنان ثابت***

	قسم الاقتصاد، كلية العلوم الإدارية، جامعة تعز، تعز، اليمن.
12:00 – 12:10	**[7067] *مدى تضمن مهارات القرن الحادي والعشرين في كتاب الأحياء للصف الأول الثانوي بالجمهورية اليمنية.*** **محمد أحمد علي قبقب، نزيهة محمد صوفان*** *قسم مناهج وطرق التدريس، كلية التربية، جامعة إقليم سبأ، مأرب، اليمن.*
12:10 – 12:20	**[2160] *Social support and its relation to internet addiction among the students of faculty of education, Taiz University.*** **Adnan Mohammed Alqadhi** *Department of psychological Guidance, Faculty of Education, Taiz University, Taiz, Yemen.*
12:20 – 12:30	**[3466] *The Impact of Occupational Health and Safety Systems on Employees' Performance in Yemen's Oil and Gas Companies. (A case study of PetroMasila Company).*** **Marwan Al-Harrani[1] Abdulrahman Al-Sufyani[2]** *[1]Department of Business Administration, Center for Graduate Studies,Taiz University, Taiz, Yemen.* *[2]Department of Tourism and Hotel Management, Faculty of Administrative Sciences, Taiz University, Taiz, Yemen.*
12:30 – 12:40	**[8167] *مشاكل عدم تحميل المصروفات التشغيلية غير المباشرة على المشاريع وتأثيرها على قائمة النشاط بالمنظمات الإنسانية.*** **عبد السلام محمد مهدي عيناء** *قسم المحاسبة، كلية العلوم الإدارية والمالي، جامعة إقليم سبأ، مأرب، اليمن.*
12:40 – 12:50	**[8541] *العدالة التنظيمية وعلاقتها بالارتباط الوظيفي: دراسة ميدانية بالتطبيق على أعضاء الهيئة الإدارية بجامعة إقليم سبأ.*** **غوية عبد الحق القبلي نمران*، هيفاء محمد عبد الله عطية** *قسم إدارة الأعمال، كلية العلوم الإدارية والمالية، جامعة إقليم سبأ، مأرب، اليمن.*
12:50 – 13:00	**[3549] *العدالة التنظيمية لدى مديري مدارس التعليم العام في اليمن وعلاقتها بالاستغراق الوظيفي للمعلمين فيها.*** **حسين حسين علي التركي** *قسم الإدارة العامة، كلية التربية والعلوم الإنسانية والتطبيقية، الجوف، جامعة إقليم سبأ، مأرب، اليمن.*
13:10 – 13:20	**[2941] *التقويم التربوي وضمان جودة التعليم في بعض مدارس التعليم العام بمحافظة تعز.*** **محمد عبد الملك علي الشجاع[1،2،3]** *[1]مناهج وطرق تدريس علوم، كلية التربية، جامعة تعز، تعز، اليمن* *[2]لتدريب والاعلام البيئي، مركز البيئة وخدمة المجتمع، جامعة تعز، تعز، اليمن.* *[3]مديرية صبر الموادم- تعز ، وزارة التربية والتعليم، اليمن.*
13:20 – 13:30	**[8610] *توظيف تكنولوجيا المعلومات في إدارة المعرفة بالجامعات اليمنية.*** **أفراح سلطان ناجي غانم[1،2]، بدرية محمد أحمد محمد[3،2]** *[1]مركز خدمة المجتمع، فرع جامعة تعز بالتربة، تعز، اليمن.* *[2]قسم الإدارة التربوية ، كلية التربية ، جامعة تعز، تعز، اليمن.* *[3]مركز المرأة، جامعة تعز، تعز، اليمن.*
13:30 – 14:30	Lunch Break

Monday: 19th December, 2022 (9:30 – 11:00), Center of Graduate Studies (CGS), Hall No. (1)

Track (4): Electrical & Mechatronics.
Track (7): Chemical Sciences & Industrial Issues.
Track (8): Administrative Sciences.

Chaired by

- **Dr. Eshraq Ahmed Alawi**

Co-chaired by

- **Dr. Marwan A. A. S. Al Maktary**
- **Dr. Gamal Ahmed Alawi**
- **Abdulaziz Alwan Awn**

9:00 – 9:10	**[6631]** ***Calculation of the Photovoltaic Module Series Resistance.*** **Zalizny Dmitry** *Power Supply Department, Faculty of Power Engineering, Sukhoi State Technical University of Gomel, Gomel, Republic of Belarus.*
9:10 – 9:20	**[4016]** ***Preparation of nanostructured Y_2O_2S powders, doped with terbium.*** **A.A. Boiko[1], E.N. Poddenezhny[1], N.E. Drobyshevskaya[1], N.V. Borisenko[2] , Niyazi A.S. Al-Areqi[3], Marwan F.S.H. AL-Kamali[1].*** *[1]Sukhoi State Technical University of Gomel, 48 Oktiabria Av.,Gomel 246746, Belarus.* *[2]Chuiko Institute of Surface Chemistry, NAS of Ukraine, 17 General Naumov Str., Kyiv 03680, Ukraine. [3]Department of Chemistry, Faculty of Applied Sciences, Taiz University, Taiz, Yemen.*
9:20 – 9:30	**[9218]** ***Biodegradable composite materials based on polymers matrix and organic filler.*** **E. N. Poddenezhny[1,*], A. A. Boiko1, N. E. Drobyshevskaya[1], N. V. Borysenko[2], Marwan F.S.H. Al-Kamali[1] and Niyazi A. S. Al-Areqi[3]** *[1]Sukhoi State Technical University of Gomel, 48 Oktiabria Av.,Gomel 246746, Belarus.* *[2]Chuiko Institute of Surface Chemistry, NAS of Ukraine, 17 General Naumov Str., Kyiv 03680, Ukraine.* *[3]Department of Chemistry, Faculty of Applied Science, Taiz University, Taiz, Yemen.*
9:30 – 9:40	**[8570]** ***SiO_2:Zn^o thin films prepared by sol-gel route and deposited using pulsed laser evaporation: Structure, morphology, and optical and electrical performance.*** **Marwan F.S.H. AL-Kamali[1], A.A. Boiko[1] and Niyazi A. S. Al-Areqi[2]** *[1]Sukhoi Gomel State Technical University, 48 Oktiabria Av.,Gomel 246746, Belarus.* *[2]Department of Chemistry, Faculty of Applied Sciences, Taiz University, Taiz, Yemen.*
9:40– 9:50	**[1187]** ***Application of Cluster Analysis Tools Based on Neural Networks to Improve Foundry Technologies.*** **Igor B. Odarchenko[1], Vitali A. Zharanau[1] and Grigory V. Petrishin[2,*]** *[1]Technological Faculty, Sukhoi State Technical University of Gomel, Gomel, Republic of Belarus.* *[2]Mechanical Engineering Faculty, Sukhoi State Technical University of Gomel. Gomel, Republic of Belarus.*

9:00 – 10:10	Coffee Break
10:10 – 10:20	**[7813] *Sol-gel derived polyvinyl alcohol/silica hybrid films.*** **A.A. Boiko[1], E.N. Poddenezhny[1], N.E. Drobyshevskaya[1], N.V. Borysenko[2], Niyazi A.S. Al-Areqi[3], and Marwan F.S.H. AL-Kamali[1]** *[1]Sukhoi Gomel State Technical University, 48 Oktiabria Av.,Gomel 246746, Belarus.* *[2]Chuiko Institute of Surface Chemistry, NAS of Ukraine, 17 General Naumov Str., Kyiv 03680, Ukraine.* *[3]Department of Chemistry, Faculty of Applied Sciences, Taiz University, Taiz, Yemen.*
10:20 – 10:30	**[1489] *نظام التنظيم الحكومي لهياكل الأعمال وخصائصه في سياق الأزمة الاقتصادية في ليبيا.*** **رمضان أحمد أتنيشه[1]، نتاليا سيتشيفا1†، مروان فرحان سيف الكمالي،*[2،] ، ورده العجمي الهميلي[3]** *[1]قسم الاقتصاد ، جامعة سوخوي التقنية الحكومية في غوميل ، غوميل ، بيلاروسيا .* *[2]معمل السيراميك التقني والمواد النانوية ، قسم علوم المواد في الهندسة الميكانيكية ، جامعة سوخوي التقنية الحكومية في غوميل ، غوميل ، بيلاروسيا .* *[3]قسم تشغيل أنظمة تكنولوجيا المعلومات ، أكاديمية بيلاروسيا الحكومية للاتصالات، جامعة سوخوي التقنية الحكومية في غوميل ، غوميل ، بيلاروسيا .*
10:30 – 10:40	**[1719] *SiO_2:ZnO Thin Films Prepared by Sol- gel Method and Deposited Using Ion-beam Sputtering: Structure, Morphology, and Optical and Electrical Performance.*** **Marwan F.S.H. AL-Kamali[1].*, A.A. Boiko[1], Dmitry Kovalenko[2] and Niyazi A.S. Al-Areqi[3]** *[1]Sukhoi State Technical University of Gomel, 48 Oktiabria Av.,Gomel 246746, Belarus.* *[2]Francisk Skorina Gomel State University, Gomel, Belarus.* *[3]Department of Chemistry, Faculty of Applied Sciences, Taiz University, Taiz, Yemen.*
10:40 – 10:50	**[8969] *Modular wear machine for tribological testing.*** **Vladimir Komrakov, Plandi Banza and Evgeniya Komrakov** *Sukhoi State Technical University of Gomel, Gomel, Belarus.*
11:50 – 11:00	**[1568] *Protective magnetic-electrical coatings based on dispersed metal waste for mixing equipment of casting industry.*** **Grigory V. Petrishin, Igor B. Odarchenko and Yaroslav V. Kudritsky** *[1]Mechanical Engineering Faculty, Sukhoi State Technical University of Gomel, Gomel, Republic of Belarus.* *[2]Technological Faculty, Sukhoi State Technical University of Gomel, Gomel, Republic of Belarus.* *[3]Brest State Technical University, Gomel, Republic of Belarus.*

Monday: 19th December , 2022 (11:00 – 13:00), Hail Saeed Hall.

11:00 – 11:05	***National Anthems of Yemen and Belarus***
11:05 – 11:10	***Conclusion Talk and Recommendations.***
11:10 – 11:15	***Talk of Rector of Taiz University***
11:15 – 11:20	***Talk of Vice- rector of Taiz University for Higher Studies and Scientific Research***
11:20 – 11:25	***Conclusion Ceremony***
11:25 – 13:00	***Distribution of Certificates and Awards***

Research abstracts

Track (1)

Medicine & Biomedical Sciences

THE ROLE OF ALLEVIATE OXIDATIVE STRESS OF OXYTOCIN IN THE NEURODEGENERATIVE DISORDERS

№ [106]

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[2]Department of Obstetrics & Gynecology, Faculty of Medicine & Health Sciences, Amran University, Amran, Yemen.

Abstract.

Neurodegenerative diseases are characterized by progressive damage in neural cells and neuronal loss; bearing in mind the relevance of oxidative stress in neurodegenerative diseases, including Alzheimer's and Parkinson's diseases, and the antioxidant properties of oxytocin, which we previously demonstrated, we studied the effects of oxytocin administration 5µM oxytocin for 24h, on enzymatic activities of superoxide dismutase (SOD) and malonic dialdehyde (MDA) level in the Neuro2a cells (N2a cell lines) which treated by 250 µM H_2O_2 for 24h. In these cells, oxytocin treatment provided a significantly lower SOD enzymatic activity and significantly higher MDA concentration. It is concluded that, due to its antioxidant effect, oxytocin can be considered a candidate for developing a new therapeutic modality in neurodegenerative diseases.

Keywords: Neurodegenerative diseases, oxidative stress, oxytocin, superoxide dismutase, malonic dialdehyde, Neuro2a cells.

التأثير المشترك لعلاج الإنترفيرون ألفا 2 ب أثناء تحضيره مع فيتامينات C و E على مسار السارس والإنفلونزا في الطفولة

№ [1496]

جمال عبدالله بلالة[1]، جعفر أمين قاسم سعيد[1]، مراد صالح سيف[2]

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الملخص

يقدم المقال نتائج التحليل التلوي للأعمال المنشورة على مدى 25 عامًا حول تأثير مضاد للفيروسات ألفا 2 ب مع مركب مضاد للأكسدة من الفيتامينات E و C على مسار الالتهابات الفيروسية التنفسية الحادة والإنفلونزا عند الأطفال ، ومدة الفيروس. تساقط وتواتر المضاعفات. استهداف. لتلخيص وتقييم نتائج الدراسات التي أجريت على تأثير دواء يعتمد على مضاد للفيروسات ألفا 2 ب مع فيتامينات E و C على مسار الإنفلونزا والسارس عند الأطفال. المواد والأساليب. تم إجراء تحليل تلوي للمنشورات المتاحة ، والذي قيم تأثير العلاج بـ الإنترفيرون ألفا 2 ب بالفيتامينات C على مسار الإنفلونزا والسارس عند الأطفال. تم تنفيذ المعالجة الإحصائية وفقًا لقواعد تجميع مراجعات كوكرين باستخدام برنامج ريفمان. نتائج. وفقًا لبيانات 17 دراسة تم اختيارها للتحليل ، فإن المستحضر القائم على مضاد للفيروسات ألفا - 2 ب مع الفيتامينات E و C يقلل بشكل كبير من مدة الأعراض الرئيسية لمرض السارس والإنفلونزا، ومدة إطلاق الفيروس ، وتكرار المضاعفات ، ويساهم في ذلك. لتطبيع معايير الاستجابة المناعية. الاستنتاجات. أظهر التحليل التلوي للدراسات التي تقيم فعالية دواء مركب يعتمد على مضاد للفيروسات ألفا 2 ب بالاشتراك مع فيتامينات E و C أن إضافته إلى نظام العلاج للعدوى الفيروسية التنفسية الحادة والإنفلونزا عند الأطفال يمكن أن تقلل من مدة ظاهرة النزلات وسيلان الأنف والتسمم ومتلازمة الحمى. لوقف الأعراض الرئيسية لمرض السارس والإنفلونزا ، يكون استخدام الدواء على شكل تحاميل أكثر فاعلية من شكل هلام أو مرهم. للتخفيف من ظاهرة النزلات ، فإن الأكثر فاعلية هو تعيين التحاميل مع المرهم. لم يتم الإبلاغ عن أي أحداث سلبية مرتبطة باستخدام عقار الدراسة. يؤدي استخدام أشكال مختلفة من مضاد للفيروسات ألفا -2 ب مع فيتامينات E و C إلى تقليل فترة إطلاق الفيروس ، وتحسين الاستجابة المناعية ، والذي يصاحبه انخفاض في حدوث المضاعفات والأمراض المتكررة.

Keywords: Virus secretion, viviron, influenza, children, interferon, interferon alpha 25, poisoning, catarrhal phenomenon.

THE PREVALENCE OF G6PD DEFICIENCY AND ITS ASSOCIATED FACTORS AMONG NATIONAL UNIVERSITY STUDENTS IN THE MIDDLE PROVINCE (IBB CITY), YEMEN

№ [2899]

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Abstract.

Background: *Glucose 6 phosphate dehydrogenase (G6PD) is a critical an enzyme for protecting erythrocytes from oxidative stress and hemolysis. G6PD deficiency is a significant public health problem in the world countries and it is associated with hemolytic complications in individuals exposed to internal and external oxidative stress.Tthe present study aimed to determine the prevalence of G6PD deficiency and its associated factors among university students from different indigenous areas in Ibb city.*

Method: *A cross-sectional study recruited randomly on 200 students (150 males & 50 females) whose decedent from different areas in Ibb province. 3ml of blood samples were collected to quantify G6PD activity levels and complete cell count (CBC) and questionnaire apply to collected history symptoms of hemolytic anemia and socio-demographic information.*

Result: *Twenty-three (19 males and 4 females) students were have G6PD deficiency with overall prevalence rate was 11.5% (9.5 % in males & 2.0% in females). G6PD deficient students having low significant ($p<0.05$) levels of Hb and RBCs count compared to normal G6PD students. 56% of G6PD deficiency students had been residing in Al-dihar place compared to 35% residing in AL-mashanah and 9% residing in other places with odd deficiency no significant (OR=1.7; 95%CI 0.8-5.0, p=0.44). 78 % of G6PD deficient students were having parents consanguineous marriage with a higher odd (OR=5.0; 95% CI 2-13, p=0.002). 70% (OR=11.0; 95% CI 4.4-30.9, $p<0.0001$) and 17% (OR=5.1; 95%CI 1.4-19, p= 0.015) of G6PD deficient students were having history of hemolytic episodes and favism, respectively, with a higher significant odd. 61% (OR=6.0; 95% CI 3- 14, $p<0.0001$), 70% (OR= 9.0; 95% CI 3-23, $p<0.0001$), 61% (OR=10; 95% CI 4-27, $p<0.0001$) and 57% (OR= 6 ; 95% CI 2-14, $p<0.0001$) of G6PD deficient students were having a higher odd incidence of tea urine color, jaundice, pallor and yellowish eyes than normal students, respectively. 65% (OR=10.4; 95% CI 4-27, $p<0.0001$) and 17% (OR=4.0; 95% CI 1-14, $p<0.035$) of G6PD deficiency were having a higher odd incidence of treatment hemolytic anemia and blood transfusion than normal students, respectively. Whereas, 39% (OR=4.0; 95% CI 1.6-11, p=0.003) and 30% (OR=3.1; 95% CI 1.2- 8, p=0.033) of G6PD deficient students were having a higher odd incidence of infections and drugs than normal students. However, 57% (OR=0.8; 95% CI 0.34-2.1, p=0.7) of G6PD deficient students were having a lower odd of history ingestion fava beans than normal.*

Conclusion: *generally, G6PD deficient individuals potentially having a higher susceptibility to development life-threatening hemolytic episodes (change urine color, skin pallor, jaundice, yellowish eyes) after exposure to internal or external oxidative stress agents. Low Hb, consanguinity between parents, susceptibility to ingestion fava beans, infections and medications, history of treatment and hemolytic episodes of anemia considered significant independent predictors of G6PD deficiency in our population.*

Keywords: Glucose-6-phosphate dehydrogenase (G6PD) G6PD deficiency, Episodes, Hemolytic anemia Risk factors students, university, Ibb, Yemen.

PREVALENCE OF SICKLE CELL TRAIT AMONG SCHOOL STUDENTS MALES AND FEMALES IN TAIZ CITY, YEMEN

№ [4005]

Abdullah AbdulGabbar Ahmed Al-alimi[1,2], Marwa Bassam[1], Afnan Abu Baker[1], Osama Lotf[1], Safia Ali Saad[1], Rofaida Ameen[1], Abrar Hassan[1], Akram Salah Al-Mugahles[1] and Galal F.Albani[3]

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[2]Postgraduate Center, Hodiedah University, Hodiedah, Yemen.
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Abstract.

Sickle cell disease (SCD) is the most common inherited disorders of hemoglobinopathies in the worldwide and represents a major public health problem in Arab countries especially Yemen. One of the most SCD is the asymptomatic heterozygotes (HbSA) sickle cell trait (SCT) carriers. The aim of the current study was to determine the prevalence of SCT, gender differences, and Full blood cells (FBC) parameters among school students in Taiz city, Yemen. A cross-sectional study was conducted on two hundred and seventy blood samples were subjected to sickling and FBC tests. One hundred thirty seven boys (50.7%) and one hundred thirty three girls (34.8%), nineteen blood samples were found sickling test positive, thirteen boys (68%) and six girls (32%) with overall prevalence of SCT among all students was 7.0% (4.8% boys and 2.2 % girls). 77% of boys and 33% of girls SCT carriers were found their parents having consanguineous marriage with statistically significant difference (p=0.007). FBC results of SCT students showed significantly lower compared to normal students(p=0.01). In conclusion: SCT carrier is highly prevalence among population in Taiz city as well as other parts of Yemen, these could be contributed to the highest degree of first-cousin consanguineous marriage and endemic malaria in this city.

Keywords: Sickle Cell Diseases (SCD), Sickle Cell Trait (SCT), School, Taiz, Yemen

SYNTHESIS, CHARACTERIZATION, DNA INTERACTIONS, CLEAVAGE, CYTOTOXIC EVALUATION AND MOLECULAR MODELING STUDIES OF OF TIN–BASED CANCER CHEMOTHERAPY DRUG AS TOPOISOMERASE I INHIBITOR

№ [5746]

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Abstract.

The new organotin complex 1 derived from propyl gallate and 1,10–phenanthroline was designed, synthesized and characterized by spectroscopic (IR, UV–vis, ESI–MS and (1H, 13C, 119Sn) NMR and elemental analytical methods. the underlying mechanisms of the anticancer action of complex 1 was further elucidated by evaluating its in vitro DNA interaction studies of complex 1 with calf thymus DNA and the regulating signaling pathways. The in vitro DNA binding studies of 1 with calf thymus DNA in Tris–HCl buffer was studied by various biophysical methods (Uv/Vis, Fluorescence, and circular dichroism) which reveal that complex 1 bind to CT DNA non–covalently via electrostatic interaction. The higher Kb value of complex 1 suggested greater DNA binding propensity. The complex 1 exhibits DNA cleavage activity with supercoiled pBR322 in the presence of different activators. The complex cleaves DNA efficiently involving oxidative cleavage pathway. Molecular docking studies were performed to understand the binding mode of complex 1 with CT–DNA (PDB ID: 1BNA).

Keywords: DNA, binding, studies.

COMPARISON OF DIFFERENT NUMBER OF BEAMS IN INTENSITY MODULATED RADIOTHERAPY IN HEAD AND NECK CANCER

№ [6102]

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[2]Faculty of Medicine, Alexandria University, Alexandria, Egypt.
[3]Ayadi Al Mostakbal Oncology Center, Alexandria, Egypt.

Abstract.

Purpose: *The aim of the work was to determine the best beams number and segments in order to improve the plans conformity and homogeneity that generate low monitor units (MUs) and faster irradiated time for different types of head and neck cancer (HNC).*

Methods: *This study includes 30 patients with different HNC. Intensity modulated radiotherapy (IMRT) treatment planning techniques were done with step and shoot delivery technique, 5, 7 and 9 beams IMRT were carried out for each patient. The treatment plans for all patients were calculated and optimized using fast superposition algorithm. All plans were generated using equal spaced odd beam number around the target. 6 MV were used in all beams. Multiple segments were created for each beam. Typically maximum iteration was carried out to achieve optimized plans. The beam weight optimized to generate the plan, then the segment weight optimized for all plans by using sliding window methods. The final optimization maps were converted into a way of step and shoot sequence map which delivered by linear accelerator using multi leaf collimator (MLC). IMRT plans were compared based on several criteria: Isodose distributions, the mean and standard deviation with p-values for planning target volume (PTV) 95%, conformity index (CI), homogeneity index (HI), organs at risk (OARs), number of segments, MUs and total irradiated time were presented and compared in all patients. Statically analyses were compared for all patients used ANOVA testes.*

Results: *The total results showed that, there was significant difference between 5, 7 and 9 beams IMRT in term of mean values for PTV95% coverage were 96.76, 97.51 and 98.22 respectively with $p = 0.005$. The conformation mean values were1.60, 1.49 and 1.34 with $p = 0.007$. HI values for the PTV were 0.14 ± 0.05, 0.13 ± 0.05 and 0.12 ± 0.04 with $p = 0.001$. Right parotid were 21.96, 20.72 and 20.43 with $p = 0.003$. Left parotid were22.14, 21.04 and 20.70 with $p = 0.100$. Spinal cord 45.34, 44.51 and 43.23 with $p = 0.003$. Brain stem were 49.52, 49.77 and 48.74 with $p = 0.058$. Number of segments were 79.85, 106.55 and 131.80 with $p = 0.001$. MUs were 23879.8, 24252.6and 22501.8with $p = 0.003$and the total irradiated time were 79.60, 80.84 and 75.0 respectively with $p = 0.003$. In fact that, the plan quality improved with an increasing the number of intensity modulated beams.*

Conclusions: *From this study we can conclude that, the 9 beams IMRT is superior to techniques using less number of beams (5 and 7) where, the 9 beams IMRT significantly improved the PTV coverage, dose distribution, conformity, homogeneity to the PTV with better sparing OARs and reduce the dose to surrounding normal tissues. Moreover, the 9 beams significantly reduced the mean MUs and pure irradiated time compared with 5 and 7 beams IMRT.*

Keywords: IMRT, Radiotherapy Techniques, Beam Number, Treatment Planning.

IN-VITRO ANTI-UROLITHIATIC ACTIVITY OF SOME YEMENI MEDICINAL PLANTS EXTRACTS

№ [7501]

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Abstract

Kidney stone is one of the most prevalent diseases worldwide. Phytochemicals are responsible for the medicinal activity of plant species. They have the ability for curing various ailment and possesses potential anti-inflammatory, anti-bacterial, anti-oxidant, and anti-fungal properties. Natural products from medicinal plants, either as pure compounds or as extracted out, provide opportunities for new drug leads because of the unmatched availability of chemical diversity. Due to the rising demand for chemical diversity nowadays in screening programs, seeking therapeutic drugs from herbal products, are quite interesting throughout the world. The present study aims at studying the anti-urolithiatic activity of aqueous, methanolic, and hot aqueous extracts of the leaves of Indigofera oblangifolia (Fabaceae), leaves and barks of Capparis Catrilaginea (Capparisaceae) and vegetable collection of Fagonia indica Burm.f. (Zygophyllaceae). First, invitro study was conducted to assess anti-urolithiatic effect of plants for all extracts with a standard drug namely Cystone as a control. Turbidity method and calcium oxalate dissolution method were practiced to access the inhibition of stone formation and dissolution of stone crystals respectively. Secondly, extracts were prepared and arranged in different concentrations. The homogenous precipitation method was used to prepare an artificial stone such as calcium oxalate and a semi-permeable membrane of eggs was used as dissolution bags. Dissolution models were incubated for 72 hrs and after that, the entire content in dissolution bags was estimated spectrophotometrically. The inhibitory activity of extracts on the nucleation of calcium oxalate crystals and the rate of aggregation in calcium oxalate crystals were determined by spectrophotometric assay besides a titration method. Aqueous & alcoholic extracts of Indigofera oblangifolia leaves showed the highest solubility, inhibition, and non-formation of calcium oxalate followed by Capparis Catrilaginea bark, the results were very close to the Cystone control. On the other hand, the lowest effects were for Fagonia indica Burm.f. leaves and Capparis Catrilaginea leaves. Indigofera oblangifolia leaves and Capparis Catrilaginea bark in some extracts exhibited significant in-vitro anti-urolithiatic activity. Aqueous and alcoholic extracts of Indigofera oblangifolia leaves and Capparis Catrilaginea bark had similar effects as commonly used Cystone medicine for preventing as well as treating renal stones, even in its crude form. Results guide us for the further detailed investigation and development of new drugs from these medicinal plants.

Keywords: Kidney and renal stones Extracted plants, Cystone, Anti-urolithiatic activity, In-vitro study

IMPURITY ANALYSIS OF GENTAMICIN SULPHATE INJECTION USING LIQUID CHROMATOGRAPHY/MASS SPECTROMETRY LC / MS

№ [8288]

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Abstract.

Gentamicin sulfate (GEN) is a broad-spectrum belonging to the group of aminoglycosides (AGs). The objective of the current study is the analysis of GEN injection impurity using reverse-Phase liquid chromatography and mass spectrometry. Five samples of GEN injection were selected from Abb governorate, and analyzed by LC/MS. The result showed that the Inj-I sample contained nineteen known impurities; m/z163 deoxystreptamine, m/z 322 garamine, m/z 319 gentamine C1, VII-2, XK-62-5, Y-02077H- δ, gentamicin C1a in m/z 450, Y-02077H-γ, XK-62-3, VII-1, gentamicins C2, C2a, and C2b in m/z 464 and m/z 478 gentamicin C1,garosamine m/z 177, m/z 448 sisomicin, at m/z 492 Y-02077H-β, XK-62-7and XK-62-8. In Inj-II sample showed fourteen impurities same impurities as in the Inj-I sample except for gentamineC1 m/z 319 and impurities in m/z 492, and garosamine in m/z 177. While Inj-III samples showed fifteen impurities same impurities as in the Inj-I sample except for impurities in m/z 492 and m/z 177. In Inj-IV sample showed nineteen impurities same impurities as in the Inj-III sample except for m/z 448 sisomicin and impurity m/z482 J1-20A. In Inj-VI sample showed eighteen impurities same impurities as in the Inj-I Rehaf sample except for garosamine in m/z 177. In addition of two unknown impurities in 490 and 110 except the Inj-II sample did not show these impurities.

Keywords: Impurity analysis, Gentamicin, LC-MS, liquid chromatography.

A COMPARATIVE CROSS-SECTIONAL STUDY ON THE LOW BIRTH WEIGHT AND ITS ASSOCIATED RISK FACTORS AMONG NEWBORNS AT TAIZ CITY (YEMEN)

№ [9822]

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Abstract.

Background: *Low birth weight (LBW) is one of the major public health challenges that have a profound effect on the morbidity and mortality of newborns in the developing countries particularly. This study aimed to highlight the low birth weight as a complicated health problem among pregnant mothers at Taiz (Yemen) and to investigate the LBW-associated factors.*

Study Design and Methods: *across- sectional study was conducted among 225 pregnant mothers attending to the certain hospitals and clinic centers at Taiz (Yemen). The interview and medical records were the data sources that picked up into a well-structured questionnaire. The collected data were statistically analyzed by SPSS.*

Results: *The prevalence of LBW was 39.11%. The maternal age was not significantly associated with the birth weight (P = 0.68); however, 50% mothers who had LBW newborns were aged 26-35 years, where mothers who had NBW newborns were equally distributed among age groups. Similarly, the education level, economic status, residence place, and healthy status were not associated with the birth weight (P > 0.05). Although, the pre-pregnancy BMI, during pregnancy BMI, MUAC and gestational age were significantly associated with the birth weight (P = 0.001, 0.039, 0.004 and 0.00, respectively), the only risk factor was gestational age according to the regression analysis (OR = 9.606, CI = 3.988-23.135, P = 0.00).*

Conclusion: *LBW is highly prevalent among pregnant mothers attending to the certain hospitals and clinic centers at Taiz (Yemen). Good healthcare services based on strategic plan and safety policy in healthcare facilities should be provided in order to manage LBW incidents.*

Keywords: LBW, Gestational age, MUAC, BMI, Birth order

Track (2)

Biological Sciences & Biotechnology

PROTECTIVE EFFECT OF ABO BLOOD GROUP AGAINST SEVERE COVID-19 INFECTION: AN OUTCOME OF HOSPITAL-BASED STUDY IN TAIZ CITY, YEMEN

№ [1242]

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Abstract.

The importance of this study it helped in reversing the actual image to health sector in facing the epidemic with the lack of capabilities that qualified the staff to face any challenges and the result was loss of a number of the most efficient medical staff in Yemen. The aims of this study was identify the prevalence of SARS COV-2 in the health sector in Taiz city, Study of clinical symptoms on who infected with COVID-19 , Study of some factors including gender, type of blood grouping, LDH values in addition to the impact vaccine and means of prevention on the prevalence of COVID-19.and Study of some chronic and epidemic diseases on chance of COVID-19. The prevalence of SARS COV-2 among the health sector in Taiz city, Yemen was investigated in 180 samples and examined some by real time PCR and some with COVID-19 IgG/IgM cassette CTK Biotech. The results in this study showed that the prevalence percentage of SARS COV-2 was 48.33% that detected in workers of health sector. The clinical symptoms were fever and exhaustion were highest percentage (94.25%) then joint pain (89.66%), headache (86.21), loss of smell and taste (83.91), sore throat (74.71%), dry cough (73.56), runny nose (62.07%), chest pain (59.77%). The male infection was 50.57% but female infection was 49.43%. The A group of blood was49.31% more than other also the infection in A group of blood more severe from other .It was reached into isolation , intensive care and taking oxygen in 27 (75%) from total 36 individual with A group who infected of COVID-19 infection. The tonsillectomy increased chance of infection in rate (42.42%) also Some of medicines proved their effective during infection like Azithromycin, Aspirin, C, D vitamins and Zinc and steam inhalation of cloves and mint . All of these contributed to make light infection also helped to avoid the infection. The LDH was high in 46 samples(52.87%) from total 87samples. The vaccine contributed in avoid infection in the rate 15.56% although of crowded work place and contacted with infected people but also not vaccinated people and not infected people of COVID19 were 36.11% and they protected due to unknown. Perhaps the epidemiology of some diseases in this city helped overcome the COVID19 in a less severe so, when Study of some chronic and epidemic diseases in covid-19 patients in health workers it was noted this result the highest was Dengue infection (69%) then Malaria (39.1%), Chikungunya fever (26.4%) ,also it was noted that the means of prevention don't achieve the desired effect and this was due to either intermittent use or to the poor quality of the used type.

Keywords: Prevalence, COVID-19, Symptoms, ABO grouping, LDH, vaccine, Means of prevention, epidemic diseases, Steam inhalation, Health workers, Hospital, Taiz city, Yemen.

EXTRACTION, CHARACTERISTIC OF LIPASE ENZYMES & MEDICAL, INDUSTRIAL APPLICATION FROM BACILLUS CEREUS (MS6)

№ [6766]

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Abstract

Lipases are class of enzymes catalyzing the hydrolysis of long chain triglycerides into fatty acids and glycerol at the interface of aqueous and non-aqueous phases. The lipases belong to an important group of biotechnological enzymes, which have got a wide range of applications in industries such as dairy, detergent, textile pharmaceutical, clinical diagnosis and disease etc the extracellular bacterial lipases are of considerable commercial and biomedical importance. In this study, we have isolated an extracellular lipase from Bacillus cereus MS6 from the effluent of a local Sewerage Yemen Company of ghee & soap industry (YCGSI) City of Taiz . The lipase production media was optimized of the enzyme and the purification was performed by a series of steps including 80% ammonium sulfate precipitation, gel filtration using Sephadex G-100 column and DEAE-Cellulose ion exchange chromatography,. Thus molecular weight of the purified lipase was determined by SDS-polyacrylamide gel electrophoreses which showed a single protein band corresponding to a molecular weight of approximately 35 kDa. The pH optimum and temperature optimum for the lipase was found to be 9.0 and 40 0C, respectively. The extracellular lipase that we have isolated and purified in this study has shown thermal and pH stability and activity in comparable with other bacterial extracellular lipases.

Keywords: Bacillus cereus MS6, lipase enzymes, gel filtration, characterization, ammonium sulfate precipitation, DEAE-cellulose chromatography, Lyophilized, Medical, Industrial Application.

EFFECT OF KHAT (KHAT EDULIS) CHEWING ON PROLACTIN HORMONE LEVELS AND ON BODY WEIGHT OF INFANTS

№ [8720]

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Abstract

Objective to review research *findings on the effects of khat Catha edulis chewing on prolactin hormone levels and effect chewing of khat on reproductive health women as effect khat edulis in pregnancy woman on body weight of infants.*

Data analysis and limited interviews revealed khat lead to lowers prolactin hormone levels in women's who chew khat and chewing khat by pregnant women's affects in growth of infants by inhibiting utero-placental blood flow and as a consequence, impairs fetal growth, so that found decrease the body weight of infants during the first two years of their life.

Conclusion: *detailed studies on the effects of khat on decrease prolactin hormone levels However, the limited available data reveal that chewing of khat has a negative impact on prolactin hormone levels.*

Keywords: khat; prolactin; chewing; hormone; levels; weight, infants.

PREVALENCE OF TRICHOMONIASIS AMONG REPRODUCTIVE-AGED WOMEN IN TAIZ CITY, YEMEN

№ [9578]

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Abstract

Trichomoniasis is an extremely common infection worldwide. This sexually transmitted disease results from infection with flagellated protozoa named Trichomonas vaginalis. It is principally infects the squamous epithelium in the urogenital tract. The present study aimed to determine the prevalence of trichomoniasis, symptoms and signs that associated with Trichomonas vaginalis infection among reproductive-age women in Taiz City. 400 samples of vagina swaps from married women in their childbearing period (15-45) years old were examined to investigate the status of trichomoniasis. The vaginal swab containing vaginal fluids was kept in tube containing 3 ml sterile Phosphate Buffered Saline (PBS), pH: 7.2, for testing by wet mount microscopy and Giemsa staining to diagnose Trichomonas vaginalis. Laboratory examination results showed that the prevalence of trichomoniasis was 7 (1.75%) specimens from 400 were positive for Trichomonas vaginalis, it was found that the rate of infection was recorded in non-pregnant women (2.73%) compared to no infection in the pregnant women. Assessment of infection rate among different age groups demonstrated that the higher infection rate was in the ages of 35-45 years old. Regarding to the residency, the prevalence rate of trichomoniasis was equal in both women inhabit urban areas and those inhabit rural areas (2.04%).

Conclusion: *Infection rate of trichomoniasis is low among reproductive-aged women in Taiz City; non-pregnant women were the most affected group than pregnant women.*

Keywords: Trichomoniasis, vaginitis, reproductive-aged women, Taiz city, Yemen.

Track (3)

Earth & Environmental Sciences

FLUORIDE REMOVAL FROM AQUEOUS SOLUTION BY PHOSPHORIC ACID-CRUSHED LIMESTONE TREATMENT

№ [2449]

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Abstract

Excess Fluoride in drinking water causes problems of public health, there are many regions in Yemen where fluoride was reported to excess the WHO permissbile limit of 1.5 mg/L. The main aim of this paper was to attempt the fluoride removalfrom aqueous solution by using the locally available limestone treatment. The use of limestone obtained from the National Company of Cement (NCC) at Wadi Saim deposit and Wadi Nakhleen deposit, in Lahj Governorate. The crude limestones were crushed with chips size between 0.5-1 cm using standard sieves. The fresh standard solution of F was used in treatment, prepared from Orion 1,000 mg/L solution. 0.68mM of phosphoric acid is prepared from the original solution with 85%. The samples were collected and analyszed for pH and limestone Characteristics. Fluoride removal from aqueous solution has achieved stability within three hours by up to 98% (remaining fluoride in the solution has found less than 1 mg/L, which is safe). The results of this study have shown high efficiency for this technique in fluoride removal. These results of the study may help in selecting a suitable local limestone sample for using in fluoride removal from drinking water by phosphoric acid with local crushed Limestone treatment.

Keywords: Fluoridation, limestone, Phosphoric acid, Lahj, Yemen.

STUDY OF SOME PHYSICOCHEMICAL PROPERTIES OF HOT SPRINGS WATER IN SHARA'A AND KIRSH, LAHJ GOVERNORATE-YEMEN

№ [7143]

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Abstract

This research aims to determination some of the physicochemical properties of hot springs in the areas of (Shara'h and Kirsh) Lahij Governorate. 45 samples were collected for 15 sites. The following parameters were measured: acidity number (pH), total dissolved solids (TDS), electrical conductivity (EC), total hardness (TH), Calcium hardness (TH.Ca), Magnesium hardness (TH.Mg), Alkalinity, calcium (Ca^{2+}), magnesium (Mg^{2+}), sodium (Na^{+}), potassium (K^{+}), bicarbonate (HCO_3^{-}), sulfate (SO_4^{2-}), nitrate (NO_3^{-}), fluoride (F^{-}), chloride (Cl^{-}), Sodium Absorption Ratio (SAR). The results showed that the value of Total Dissolved Solids (TDS) exceeded the limits of the World Health Organization (WHO), Food and Agriculture Organization (FAO), and Yemeni Standard Specifications for Water (YSSW) by 46.6% of the samples. Sulfate is more than the recommended limits of WHO by 46.6%, sodium exceeded the permissible limits of the WHO by 100% of the samples, potassium higher than the standard set by YSSW by 100% of the samples, while the rest of the parameters aren't exceeded the limits of the WHO and YSSW. Also, the results show that the water of Shara'h and Kirsh hot springs has temperatures (^oC) of 60 and 62.5 respectively.

Keywords: Physicochemical Properties, Hot Springs, Shara'a, Kirsh, Lahj, Yemen.

PRELIMINARY GEOPHYSICAL INVESTIGATIONS OF GEOTHERMAL ENERGY RESOURCES BELOW THE VOLCANIC PLATEAU AND SURROUNDINGS, WESTERN YEMEN

№ [9075]

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Abstract

Fossil fuel forming the spine of industrial revolution and its consumption is steadily increased during the nineteenth and twentieth centuries leading to heavy environmental pollution due to the increased concentration of CO_2 in the atmosphere which is the main causes of the global scale climate change problem facing humanity today. This existential challenge forced the attention to renewable energy alternatives (e.g. solar, wind, geothermal, hydropower and marine energies). Beside the adverse effects of climate change on food security and groundwater reserves in Yemen, the acute energy shortage is one of the main obstacles facing economic growth. According to the Yemeni public power company (YPEC), the total installed capacity of electricity in 2009 was around 1600 MW (totally generated by fossil fuel), with a power supply gap in demand of 250 MW. Due to both political and security instability straggled in 2011, internal and external war and conflicts started in 2015, as well as the rapid population growth, the power capacity is largely dropped and consequently the power supply gap enlarged to more than 730 MW in 2011 and exceeds 2444 MW in 2020, the demand was 3102 MW. It was also reported that, the blackout time in cities has increased to 20 h a day, and some cities have experienced complete blackouts. In order to fill the current gap in power supply and to provide energy requirements for any future sustainable development strategy and in view of heavy cost and environmental pollution associated with fossil fuel generated energy, it is important to pay more attention to renewable energy alternatives. However, Yemen has a diversity of renewable energy sources such as solar, wind, geothermal, and hydropower energy. Among these renewable energy resources this work deals with geothermal energy which is stable natural resource without CO_2 emissions. Yemen is located at the southwestern corner of Arabian Peninsula surrounded by the Red Sea and the Gulf of Aden rift basins that are formed in response to an intensive phase of magmatism and extension related to the impingement of the Afar mantle Plume beneath the Afro-Arabia. This geodynamic context, along with the recorded high heat flow and widespread geothermal activity distributed through the country, with notable concentration in its western part, enhancing geothermal energy potential in Yemen. The aim of this work is to delineate geothermal energy sources in the study area. To achieve this purpose, satellite gravity data from EGM2008 and aeromagnetic survey data are carefully processed and analyzed using several techniques in order to construct three dimensional models of Moho interface undulations and Curie isothermal surface perturbation in the study area. Three zones are clearly recognized on the constructed Moho interface undulation model of the area at depths of 18 – 24 km (below coastal regions), 24 – 29 km (correlated with desert and basement complex regions in the eastern and northern parts of the area and with the transitional zone to the plateau in the western part) and 29 – 35 km (beneath the plateau). The deepest part of Moho interface is mainly localized beneath Al Lisi and Isbil active volcanoes in the Dhamar – Rada'a Quaternary volcanic field. On the other side, Curie isothermal surface model of the study area shows that Curie point depth (CPD) varies between 20 – 71 km. The western part of the area is occupied by the shallow CPD zone (< 28 km) except for the two deep CPD spots located below/around Jabal Bura and beneath the upper western corner of the area. The shallowest part of the shallow CPD zone forming an elongated belt crossing the study area below the plateau from the southwestern part (on the Red Sea coast) to the northern part (east of Sa'dah), mostly correlated at the surface with the Late Miocene and Quaternary volcanic fields. The difference between Moho interface (crustal thickness) and Curie isothermal surface depths indicates that Curie isothermal surface is shallower than Moho interface along this belt

Keywords: Volcanic Plateau, Geothermal Energy Resources, Western Yemen.

Track (4)

Electrical & Mechatronics

OPEN-SOURCE SOFTWARE AND HARDWARE FOR DESIGN AND DEVELOPMENT OF UAVS: DEMONSTRATION WITH CASE STUDY

№ [1670]

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Abstract

The dramatic evolution of the world of technology, particularly the world of autonomous vehicles and robots, suggests a complex, advanced and sophisticated future generation of unmanned vehicles. This development includes software and hardware fields, which complement each other. This contribution analyzes the most commonly available and widely used Open Source Simulation (OSS) platforms such as (jMAVSim, FlightGear, X-Plane, UE4Sim, AirSim, Gazebo, MORSE, and Webots) suitable for learning and scientific research environments. In addition, the Open Source Project (OSP) platforms are described. The Pixhawk series has been reviewed due to its easy availability, and cost-effectiveness. Moreover, a technical comparison for CUAV FC (Flight Controller) series was made. This work presents an experimental case study based on the AirSim simulation platform and Pixhawk autopilot board. This work concludes that open source platforms can be considered a suitable approach for the research, development, and education of UAV systems. It is worthwhile to note the importance of the simulation process before conducting the actual tests, especially in the field of aviation where risk ratios and sudden error are higher. Moreover, virtual simulation environments are valuable learning platforms in academia and industry.

Keywords: UAV, Autopilot, Multi-rotor UAV, Open-Source Simulation Platforms, HIL.

تقييم تأثير استخدام الميكروويف على الخصائص الفيزيائية لتجفيف لطوب الطيني مقارنة بالطرق التقليدية

№ [5250]

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الملخص

تحتل العمارة الطينية مكانة كبيرة في اليمن وخاصة في حضرموت وتعتمد بالدرجة الاساسية على استخدام الطوب الطيني او مايعرف بالمدر ولا تزال الحالة الحالية لعملية تصنيع الطوب تقليدية جدًا حيث يستغرق تجفيف الطوب الطيني وقتًا طويلاً للغاية ويتطلب عمالة مكثفة إضافة إلى هذه المشكلة فإن تسريع التجفيف بإستخدام وسائل اخرى كالتسخين والحرق وغيره ظهرت إشكاليات اخرى فالتسخين غير المتكافئ أثناء التجفيف والحرق يؤثر كثيرًا على جودة الطوب والتي غالبًا ما تسبب تشققات

تهدف هذه الورقة البحثية إلى تقييم فعالية استخدام طاقة الميكروويف مقابل الطرق التقليدية لتجفيف الطوب الطيني ومن ثم يتم ضغط عينات من الطين الرطب في قالب بلاطه بتركيبات مختلفة و بعد ذلك يتم تجفيف العينات الرطبة باستخدام أربع طرق حرارة مختلفة (طبيعية ، هواء ساخن قسري ، فرن كهربائي وميكروويف) تمت مقارنة جودة الطوب المجفف من حيث امتصاص الماء والكثافة والتشققات

خلاصة النتائج التي تم الحصول عليها تكمن في الاستنتاج بأن تقنية الميكروويف لديها إمكانات كبيرة ليتم تطبيقها كمصدر للتجفيف في إنتاج الطوب .من المتوقع أن يؤدي استخدام هذه التقنية إلى تقليل العمالة المكثفة التي تعتمد على انتاج الطوب وفي بيئة أكثر استدامة.

الكلمات المفتاحية: الطوب الطيني (المدر) ، الميكروويف، تجفيف، تشقق؛ أمتصاص الماء

DRONE DETECTION SYSTEM USING ARTIFICIAL INTELLIGENCE AND COMPUTER VISION

№ [6579]

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Abstract

This paper presents air defense system (ADS) development to be able to automatically detect threats in the airspace (e.g., drones) and track them without a human interference. The ADS is carried out the usage of servo-motors, digital camera, and laser gun. The camera starts to take pics of objects in the airspace and detect moving objects around it. Deep learning algorithms are used for the detection and classification of targets. MATLAB software program used for image processing and detection via using YOLOv5 detection algorithm. And the use of the Arduino Uno microcontroller which controls the orientation of the actuators. The air defense system was designed through SOLIDWORKS software program and printed by a 3-D printer. Experimental results showed that the system can detect threats within the airspace with good effectiveness and accuracy. In the detection stage, an average loss of 0.03, F1 score of 94% and a mAP of 97% was achieved with the use of YOLOv5.

Keywords: Air, Computer vision, Drone, YOLOv5.

CALCULATION OF THE PHOTOVOLTAIC MODULE SERIES RESISTANCE

№ [6631]

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Abstract

A theoretically based methodology to calculate the series resistance of a PV module after experimental meas-urements is suggested in this paper. For the methodology is considered the standard PV module one exponential equivalent circuit. In the paper is proposed to ignore the shunt resistance and take into account only the series resis-tance to obtain the PV module I-V characteristic. There is demonstrated that the total PV module I-V characteristic it is the sum of the p-n junction I-V characteristic (exponential form) and the serial resistance I-V characteristic (linear form). So, to get the series resistance characteristic we have to subtract ideal I-V characteristic from real one ob-tained after experimental measurements near to the normal conditions.

In the paper described a calculation algorithm for the series resistance. Experimental tests have shown that the maximum relative error between experimental and theoretical PV module I-V curves under different conditions is not exceeds 12%.

The suggested methodology may be used for the PV modules diagnosis during its exploitation on solar plants. Time to time, for example once a year, we have to measure I-V curve of the same PV module on a solar plant and then calculate the serial resistance value by the proposed algorithm. The analysis of the resulting trend will allow us to identify a decrease of the PV module efficiency or detect damages of this module.

Keywords: PV Module, I-V Characteristic, Equivalent Circuit, Series Resistance.

MODULAR WEAR MACHINE FOR TRIBOLOGICAL TESTING

№ [8969]

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Abstract

The article deals with the problems of obsolete wear machines, which were designed and manufactured in the 80s of the last century, and their partial modernization.

It is noted that despite the modernization of machines of obsolete designs and the emergence of new wear machines in the 21st century, the level of their automation is quite low. Therefore, a new approach to the construction of wear machines with a high degree of research automation is proposed. A wear machine with a modular construction principle is considered. Thanks to this principle, it is possible to reproduce various methods of tribological tests, as well as to automate the main actions of the maintenance personnel.

The main modules of the device and their design are described. In addition, the architecture of the device, its electronic and electrical components and the software developed to control the operation of the device are given. The results of determining the amount of wear of cylindrical specimens, obtained using the developed wear machine, are presented.

The proposed modular principle of building a wear machine, which simplifies the structural elements of a wear machine, can significantly reduce their cost, automate the main processes, which will make it possible to scale and, consequently, reduce the time and cost of research, improve the quality of the results obtained by eliminating the influence of the human factor.

Keywords: wear machine, tribological tests, architecture of the device, electrical components, software for control the operation.

FRAMEWORK FOR IMPROVING TRAFFIC IN TAIZ CITY

№ [9913]

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Abstract

From the beginning of the emergence of horse carriages until the advent of cars, the need for someone to regulate the movement of vehicles began. The need has increased in the current century due to the growth of societies and the increase in the population, and consequently the increase in the number of vehicles. Traffic congestion has become one of the most important issues in cities. Traffic jams not only cause delays and stress for drivers, but also lead to increased fuel consumption and air pollution. Despite the spread of the phenomenon of traffic congestion in the city of Taiz as a whole, it appears to us those intersections are the most congested areas, and with the increase of this phenomenon in normal traffic systems, it was necessary to calculate the density of traffic on the roads in real time in order to better control the process of vehicle traffic.

Modern technologies such as artificial intelligence, Internet of things, cloud computing and digital systems have contributed to the emergence of STLs. Smart traffic lights have proven to be better than ordinary traffic lights in relieving traffic congestion. Our proposed system aims to use live images from cameras at traffic intersections to calculate traffic density using image processing and AI (YOLO algorithm). We conclude that Yolo algorithm has achieved better performance due to its ability to extract image features at first sight and thus has the ability to identify compounds in real time.

Keywords: Image processing, Signal switch algorithm, Traffic control, Vehicle detection.

Track (5)

Computer Science & Information Technology

HYBRID OPTIMIZATION BASED ON SPECTRUM AWARE OPPORTUNISTIC ROUTING FOR COGNITIVE RADIO AD HOC NETWORKS

№ [1166]

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Abstract

Opportunistic routing has increased the efficiency and reliability in Cognitive Radio Ad Hoc Networks. Many researchers have developed opportunistic routing models, among them the Spectrum Map-empowered Opportunistic Routing (SMOR) model is considered to be a more efficient model. However, there are certain limitations in SMOR which requires attention and resolutions.

The issue of delay and packet delivery ratio degradation due to non-consideration of network bandwidth and throughput is addressed in this paper. In order to resolve these issues, a hybrid optimization algorithm comprising of firefly optimization and grey wolf optimization algorithms is used in the basic SMOR routing model. Thus developed Hybrid Firefly Grey-Wolf Optimization based SMOR (HFGWO-SMOR) routing model improves the performance by high local as well as global search optimization.

Initially, the relationship between the delay and throughput is analyzed and then the cooperative multipath communication is established. The proposed routing model also computes the energy values of the received signals within the bandwidth threshold at time period and hence the performance issues found in SMOR are resolved. To evaluate its efficiency, the proposed model is compared with SMOR and other existing opportunistic routing models, which show that the proposed HFGWO-SMOR which performs better performance than other models.

Keywords: Opportunistic routing, Firefly optimization, Grey-Wolf Optimization, bandwidth threshold

A SYSTEMATIC REVIEW OF CURRENT DEEP LEARNING APPROACHES USED TO PREDICT SEMANTIC SIMILARITY IN SOCIAL MEDIA

№ [4471]

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Abstract

This paper aims to highlight the latest and most widely used Deep Learning approaches in text similarity prediction. The study focuses on articles published from 2010 to 2022 in the field of text similarity prediction and algorithms applied in this field. In this paper, systematic scientific comparisons have been made between existing approaches for predicting text similarity to answer the question raised in this study about the most used and accurate approach. Through previous studies and the comparisons made in this paper, the Ant Colony Optimization Algorithm (ACO) approach was found to be the most frequently used in text similarity prediction and solving scheduling problems.

Keywords: Semantic similarity, social media prediction, Ant Colony Optimization Algorithm.

THREE HASH FUNCTIONS COMPARISON ON DIGITAL HOLY QURAN INTGERITY VERIFICATION

№ [4984]

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Abstract

This paper provides a study of hash functions comparison on holy Quran integrity verification to ensure integrity of data in digital copy of holy Quran. There are many methods available in data security area for integrity verification. This study presents a comparison of three cryptographic hash functions SHA256, RIPEMD160 and Blake3 which used to verify the integrity of digital holy Quran and determine which one is better. Blake3 hash function is chosen in this proposed schema because it has many characteristics, the most important of which is the speed characteristic, and it will be mentioned in detail in Background section. Furthermore, this study focuses on security analysis and performance analysis. Where many tests be applied to find out the strength and effectiveness of each three hash functions and all possible possibilities of hash collisions be carefully analyzed and studied. The performance analysis will be applied also by measuring the speed of the proposed methods.

Keywords: integrity verification, holy Quran, hash functions, SHA256, RIPEMD160, Blake3.

SECURITY ADMINISTRATION FOR DATA WAREHOUSE

№ [5031]

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Abstract

The relevance of data warehouses for an organization's decision support system has rapidly grown over the past few years. Data warehousing poses its own set of challenges for security, enterprise data warehouses are often very large systems, serving many user communities with varying security needs. Permissions on the warehouse must satisfy the security restrictions of the data owners. Therefore, the critical problem is how to administrate the access rights of the warehouse. This paper presents the main issues and concerns involving data warehouse security.

This paper discusses various techniques for managing security and controlling access to data warehouse objects. Therefore, through this research, a simple prototype was proposed to manage data warehouse users and their roles.

Keywords: Data Warehouse (DW), Decision Support System, Controlling Access to Warehouse Data Object.

REDUCING THE RISK OF FORGOTTEN LONG SECRET KEY

№ [9015]

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Abstract

Nowadays, most people's use PCs, and save sensitive information in their PCs. Some of users use encryption/decryption techniques to hide his/her own sensitive information, and other not use cryptography at all. But a lot of the users use unsuitable secret keys.

They use either short, or weak keys, because each of short or weak keys are easy to be remembered. Those users may don't know the risk of using weak or short keys, and they may don't know that the security produced from cryptography are directly proportional to the quality and the length of the secret key used along with the used algorithm.

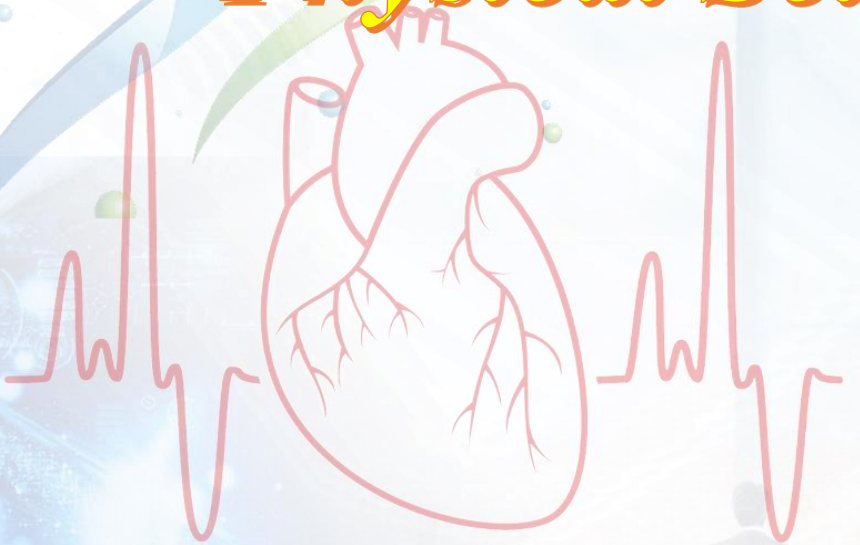
Using suitable secret key, may necessitate some users to save the secret key in a file or to write it in some place, which in turn weaken the associated security. Reducing the problem of keeping long key secretly without forgotten it and without saving it in a file is a valuable problem.

This paper suggests a method to generate a suitable secret keys from passphrases along with salt 'short secret key' by using one way hash function. In the suggested method, the user can exploit some files saved in his/her PC as passphrases, and generates the actual secret key by selecting one or more of the passphrase files and hashing it/them along with the salt. The output of the hashing can be used as an actual user secret key, called message digest code. By this way, the user will remember only small secret key.

Keywords: passphrases, encryption/decryption, hash function, Symmetric, Asymmetric, Message Digest Code, Confidentiality.

Track (6)

Mathematical & Physical Sciences



STRUCTURAL AND OPTICAL PROPERTIES OF CdSeGe Amorphous Films

№ [546]

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Abstract

Thin films of $Cd_{10}Se_{75}Ge_{15}$ were prepared by the conventional thermal evaporation technique on glass substrate. The chemical composition of the films has been checked using energy dispersive X-ray spectroscopy (EDX). X-ray diffraction (XRD) measurements have shown that all investigated compositions in powder and thin film form have amorphous nature. Transmittance measurements in the wavelength range (350-2500nm) were used to calculate the refractive index n and the absorption index k using Swanepole's method. The analysis of the optical absorption data revealed that the optical band gap E_g was indirect transitions. The optical dispersion parameters E_o and E_d were determined according to Wemple and Didomenico method. The optical constants such as optical band gap E_g^{opt}, complex dielectric constant and dissipation factor $\tan\delta$ were determined.

Keywords: CdSeGe, thin film, optical constants, dispersion parameters.

ON GENERALIZATION PROPERTY OF I^S- OPEN SETS IN IDEAL TOPOLOGICAL SEMIGROUPS

№ [459]

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Abstract.

In this paper, we introduce and investigate a new class of I^s-open sets, called generalized Is−open sets in ideal topological semigroups.

We study some properties on this class, such as product and relativity. Furthermore, the relationships between this class and other known classes are introduced and studied.

Keywords: open set; ideal topological space, topological semigroup. AMS classification: Primary 54A05, 16W30.

SYNTHESIS AND STUDY OF STRUCTURE, MORPHOLOGICAL AND OPTICAL PROPERTIES FOR TiO_2-Al_2O_3-La_2O_3 PREPARED BY CHEMICAL BATH DEPOSITION

№ [882]

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Abstract

TiO_2-Al_2O_3-La_2O_3 thin films were prepared on glass substrates from solution of Ti $[OCH(CH_3)_2]_4$, $AlCl_3.6H_2O$ and $LaCl_3.7H_2O$ at room temperature using a chemical bath deposition (CBD) method. The morphological, structural and optical properties of the TiO_2-Al_2O_3-La_2O_3 thin films were investigated using X-ray diffraction (XRD), field emission-scanning electron microscopy (FE-SEM), Fourier- infrared (FT-IR) spectrometer, Raman spectrometer and UV-VIS spectrophotometry. The XRD results showed that the average crystal size for TiO_2-Al_2O_3-La_2O_3 film at La concentration, with the hexagonal phase and the degree of crystallization strengthening after annealing. The Raman spectrum showed many small peaks and abroad peak, after annealed the intensity of peaks decreases with increasing the La concentration, and sharp peaks are observed in only at the first concentration and a large hump with increasing the concentration of (La). FT-IR spectra showed absorption peaks of different functional groups (i.e., O-H, C-O, Ti-O-Ti, Al-O and La-O), it's become sharp peaks after annealing with increasing concentration of La, which indicate of crystallization. FE-SEM images revealed 3D particles of TiO_2-Al_2O_3- La_2O_3 thin film, and the films were almost homogeneous and uniform. The bandgap energy (Eg) of TiO_2-Al_2O_3 doped with La thin film show decreased in the value with increase (La) concentration in both cases before and after annealing, respectively.

Keywords: TiO_2-Al_2O_3 -La_2O_3, CBD, Annealing, Morphological, band-gap energy.

INVERSE DOMINATION IN SOME OPERATIONS ON INTERVAL VALUED FUZZY GRAPHS

№ [2050]

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Abstract

The inverse dominance number γ8(G) was invented and examined in this paper for several operations on interval-valued fuzzy graphs, such as union, join, and composition.

Keywords: Interval-valued fuzzy graph, Inverse domination number, Operation on fuzzy graph, Inverse domination set.

VACANCY DEFECTS IN CARBON NANOTUBES FOR HYDROGEN STORAGE

№ [2783]

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Abstract

The hydrogen storage outside and inside carbon nanotube (CNT) has investigated at different positions using density functional theory (DFT) and applying 6-31g basis set. In addition, the effect of vacancy defects on hydrogen storage has been studied including mono-vacancy, di-vacancy and isolated monovacancy defects. The adsorption energy, HOMO (highest occupied molecular Orbital), LUMO (lowest unoccupied molecular orbital), energy gap, dipole moment and Mullikan Analysis are discussed. The results show that hydrogen molecule cannot be stored inside the CNT. However, the hydrogen molecule prefers to be stored outside the nanotubes. The most candidate CNT for hydrogen storge is found to be mono-vacancy defected CNT with hydrogen adsorption energy -3.8 eV.

Keywords: DFT, CNT, Hydrogen Storage, Vacancy defects, Adsorption Energy.

IMPLICATIONS OF CHANGING THE Cd-Ge-Se THIN FILM THICKNESS DEPOSITED BY THERMAL EVAPORATION TECHNIQUE ON STRUCTURAL AND OPTICAL PROPERTIES FOR OPTOELECTRONIC APPLICATIONS

№ [2798]

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Abstract

The present work investigates the influence of thickness on the structural and optical properties of $Cd_2Ge_8Se_{90}$ thin films. Amorphous $Cd_2Ge_8Se_{90}$ thin films with different thickness (d=374, 516, and 816 nm) have been deposited on pre-cleaned glass substrates. Based on transmittance spectra T(λ), the optical parameters (the band gap energy E_g, tail energy Ee) and optical constants (the refractive index n, extinction coefficient k) among others were investigated using Swanepole's method. The analyses of the absorption spectra of $Cd_2Ge_8Se_{90}$ thin films indicate the existence of an indirect optical transition mechanism. Linear parameters such as the optical band gap decreases with an increase in the thickness of films while the Urbach energy revealed contrasting behavior. The dispersion of the refractive index is described using the Wimple-DiDomenico (WDD) single oscillator model and the dispersion parameters were computed. The oscillator energy and the dispersion energy increase with an increase in the thickness of films. Other electronic parameters such as the high frequency dielectric constant, the ratio of free charge carrier concentration to the effective mass N/m, plasma frequency, ω_p single oscillator strength So and its position λ_o are significantly influenced by thickness.*

Keywords: Cd-Ge-Se, thin films, optical parameters, optical constants, dispersion parameters.

FOLDING MODEL ANALYSIS OF ELASTIC AND INELASTIC SCATTERING OF (11B + 12 C) REACTION IN ENERGIES (28 – 100) MEV

№ [5205]

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Abstract

In the present study angular distributions of the differential cross section for elastic and inelastic scattering of 11B +12C reaction, 11B as a target for a range of energy (Elab) 28-100 MeV have been analyzed in the framework of the optical model (OM) potential. The folded potentials are constructed by folding double folding cluster matter (DFCM) density with the α – N effective interaction to generate the real part of the optical potential. The derived a semimicroscopic potentials produced successful description of the differential elastic and inelastic scattering cross sections at some energy.

Keywords: Folding model analysis, Elastic scattering, Inelastic scattering, Optical model potential.

ON COEFFICIENT ESTIMATES FOR NEW SUBCLASSES OF Q-BI-SPIRALLIKE FUNCTIONS.

№ [6251]

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Abstract

In this paper, we introduce and investigate two new subclasses of the function class $\Sigma@$ of λ-q-Bi -spirallike functions defined in the open unit disc. Furthermore, we find estimates on the coefficients $\lfloor\alpha_2\rfloor, \lfloor\alpha_3\rfloor$ and $\lfloor\alpha_4\rfloor$ for functions in these two new subclasses for functions.

Keywords: Univalent functions, Bi univalent functions, spirallike, Subordination, Coefficients bounds.

THE EFFECT OF CHANGING Q-FACTOR ON THE STABILITY RESPONSE OF ACTIVE-R FILTER USING OP-AMPS.

№ [6946]

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Abstract

This article illustrates a new configuration to realize the stability of third order active-R filter. If the resistive voltage-dividers have high input impedance and low output impedance, the circuit realizes concurrently three transfer functions low-pass, band-pass, and high-pass concurrently in single circuit with work at different nodes with gratified results. It observed that, the low-pass filter works for all values of quality factor and is extremely stable only when $Q \leq 1$. Whereas, the band-pass filter works and is asymptotically stable for all values of quality factor. The high pass filter works for all values of quality factor and is asymptotically stable only when $Q \leq 1$. The circuit has also low sensitivity to passive and active elements. From the results, it can be seen that when $Q \leq 1$, the circuit has excellent low-pass performance and high-pass performance and for all values of quality factor, the circuit has excellent band-pass performance.

Keywords: Filter, Stability response, third order, Active-R, Quality factor, OTA, Op-amp.

D-PRECONNECTED SETS IN D-METRIC SPACES.

№ [7519]

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Abstract

The purpose of this paper is to introduce and investigate weak form of D-connected sets in D-metric spaces, namely D-preconnected sets. The relationships among this form with the other known sets are introduced. Furthermore, we give the notions of some properties of D-preconnceted sets.

Keywords: Closed set, Metric spaces, Connceted sets.

GENERATION OF GENERALIZED SPIRALING BESSEL BEAMS BY THE ILLUMINATION OF A CURVED FORK-SHAPED HOLOGRAM WITH A NEW TYPE OF HOLLOW LASER BEAMS FAMILY

№ [7597]

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Abstract

In this paper, we study the generation of generalized spiraling Bessel beams (GSBB) which introduced by the illumination of a curved fork-shaped hologram (CFH) with a new type of hollow laser beams family by considering a Flat-topped vortex hollow beam. Based on the Fresnel diffraction integral formula, the analytical expressions for the diffracted wave field amplitudes of the produced beam are investigated. The numerical results show that the variation of the intensity distribution of the produced output beam in longitudinal and radial directions depends on the effect of the incident beam parameters and of the order of the spiraling output beams. The present work gives more general characteristics and diffraction by a CFH of Flat-topped beam and fundamental Gaussian beam, which are deduced as particular cases of this study.

Keywords: "Generalized spiraling Bessel beams", "Curved fork-shaped hologram", "Flat-topped vortex hollow beam".

PERFECT DOMINATION IN SOME OPERATIONS ON INTERVAL-VALUED FUZZY GRAPHS

№ [7655]

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Abstract

In real life, the perfect dominion has a variety of uses. This paper looks at the perfect domination number's boundary in operations on interval-valued fuzzy graphs such as intersection, union, join, Cartesian product, and composition. We examine several characteristics of interval-valued fuzzy graphs and derive numerous novel results with appropriate instances. Because this is the first study of perfect dominance in operations, the new laws or generalizations of perfect domination in operations on interval-valued fuzzy graphs can be used and applied to fuzzy graphs and graphs.

Keywords: Interval valued fuzzy graphs, domination number, perfect dominating set, perfect domination number.

Track (7)

Chemical Sciences & Industrial Issues

ELECTRONIC DISPLAY SCREENS BETWEEN THE BENEFITS AND HARMS

№ [128]

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Abstract

Electronic display equipment is developing day by day. However, the global waste electrical and electronic equipment problem is rooted in a lack of technically mature solutions, weak enforcement and high costs of legal processes, and it is simply cheaper for end users to ship waste materials abroad. The lack of an effective technical solution, for efficient and selective mineral recovery plays a major role. The danger of electronic waste lies in the fact that it contains more than 1,000 different substances, many of which have toxic components, including lead and arsenic, which are found in a high percentage in television screens, dioxin and antimony trioxide, bromide compounds that are produced as secondary sources, and the dangerous element selenium that is found in integrated circuit boards and helps on regulating the passage of electric current in them, cadmium, which is also found in integrated circuits, chromium, which is used in steel packaging to protect it from rust and corrosion, cobalt, which is used in some devices to take advantage of its magnetic properties, and mercury, which is used in the manufacture of circuit breakers, as we find it in keyboard and flat screens. In addition to all the risks arising from WEEE, the manufacture of electrical and electronic equipment (EEE) screens consumes large amounts of metal. The electronics industry is the third largest consumer of gold (Au), and is responsible for 12% of global demand, 10% for indium, along with 30% for copper (Cu), silver (Ag) and tin (Sn). Rare or other minerals are of critical importance to ICT equipment (mobile phones, computers, etc.), and are of great value in human life. The most common rare metals in display equipment and information and communication technology are indium, yttrium and gallium. This study sheds light on the contents of the display screens of important minerals and clearly reveals the danger of some elements, and methods of treatment and recovery of the most important elements.

Keywords: Electronic display, Screens, Benefits and harms.

APPLICATION OF CLUSTER ANALYSIS TOOLS BASED ON NEURAL NETWORKS TO IMPROVE FOUNDRY TECHNOLOGIES

№ [1187]

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Abstract

Methods for analyzing the technological similarity of blanks have a good prospect of application for automating the selection of technological parameters for the process of obtaining castings. The paper analyzes the key aspects of the application of methods for numerical calculation of the wall thickness of castings to use the data obtained as the main source of data in systems for neural network classification of parts. The practical result of the introduction of the proposed methods will be the fundamental possibility of an unambiguous and objective assessment of the degree of similarity of castings, in terms of technological identity. This technique is quite universal and can be easily adapted to other technological processes in mechanical engineering.

Keywords: Numerical Calculation, Castings, Neural Network, Similarity of Castings, technological Identity.

PROTECTIVE MAGNETIC-ELECTRICAL COATINGS BASED ON DISPERSED METAL WASTE FOR MIXING EQUIPMENT OF CASTING INDUSTRY

№ [1568]

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Abstract

In this paper, we propose a solution to the problem of increasing the service life of mixture preparation equipment's elements of the casting foundry. The main methods of increasing the wear resistance of the parts are considered. It is proposed to apply protective coatings on the working surfaces of equipment's parts by the magnetic-electrical method. New low-cost powder mixtures for coatings, obtained by borating dispersed metal wastes, have been developed. The influence of the composition of the developed powder on the wear resistance of magnetic-electrical coatings under abrasive wear conditions has been established. The possibility of increasing the hardness and wear resistance of magnetic-electrical coatings by introducing sintered hard alloy waste - dispersed tungsten carbide into the composition of the powder has been studied. The results of comparative laboratory tests of the wear resistance of magnetic-electrical coatings using mass-produced powders and new powders based on diffusion borated metal waste are obtained. Production tests of mixer blades for the preparation of sand mixtures in the foundry have been carried out, and an increase in service life by 50-70% has been established in comparison with mass-produced parts.

Keywords: Protective coatings, metall powders, borated materials, metal waste, wear resistance.

SiO_2:ZnO THIN FILMS PREPARED BY SOL- GEL METHOD AND DEPOSITED USING ION-BEAM SPUTTERING: STRUCTURE, MORPHOLOGY, AND OPTICAL AND ELECTRICAL PERFORMANCE

№ [1719]

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Abstract

The paper studies Thin Films based on Silica which doped with zinc ions (SiO_2:ZnO) at A Molar Ratio of (1:0.20; 1:0.30; 1:0.40) Deposited on Quartz and Silicon Substrates. The films were obtained by ion sputtering in a gaseous medium (argon/oxygen) from High-Silica targets obtained by the Sol-Gel method. The morphology and structure of the films were studied using scanning electron microscopy and X-ray phase analysis. X-ray phase analysis of the films revealed that the structure of the films is polycrystalline and has a hexagonal structure. The obtained frequency dependences of the dielectric permittivity of SiO_2:ZnO films showed a decrease in the dielectric permittivity and dielectric loss tangent in the range of (103 to 106) Hz. It has been found that when the SiO_2:ZnO film thickness is less than 100 nm, a thin-film capacitor is not always formed.The band gap of E_g(ZnO) changes with increasing concentration from 3.564 to 2.598 eV, and E_g(ZnO) changes with increasing concentration from 5.299 to 3.586 eV. A dip corresponding to the plasmon effect is observed in the transmission spectra in the region of 600–650 nm.

Keywords: Ion- beam Sputtering, Sol-gel, Zinc ion, Band gap, SiO_2:ZnO, Morphology, High-silica thin films, XRD, SEM.

PEROVSKITE SOLAR CELLS (PSCS): DEFINITION, STRUCTURE, AND SOLAR CELLS DEVELOPMENT

№ [1859]

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Abstract

Due to the unique advantages of perovskite solar cells (PSCs), this new class of PV technology has received much attention from both, scientific and industrial communities, which made this type of solar cell has been improved at an unprecedented rate. Although the obvious significance of PSCs, this technology has shown low stability in environmental conditions, and it is far to reach the stability standards of commercial types. This review article shows the contents of perovskite matter and its perfect photoelectric properties and discusses the process of converting photo energy to electric energy in which perovskite light absorbers are sandwiched between an electron transporting matter (ETM) and a hole transporting matter (HTM) and the relationships between them. It is important to explain the stability issues of PSCs so that, the main factors, which degrade the different layers and reduce the stability of PSCs, are highlighted. Moreover, the recent improvements in the principal parts of PSCs are summarized in this review article. This work has been done for a better understanding of this promising PV technology. Presides, it surveys significant solutions and suggestions of several studies in this field. Consequently, this review article is going to help researches to understand the structure of PSCs, and figure out how they can enhance the stability and efficiency of PSCs to achieve the required standards to be a commercial technology.

Keywords: Perovskite, PSCs, solar cells, semi-conductor.

BENEFITS OF RECYCLING LITHIUM-ION BATTERIES IN MOBILE PHONES

№ [3258]

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Abstract

Recycling of lithium-ion batteries for mobile phones, which is dominant in the phone battery industry in general, recovery of precious metals such as cobalt and lithium, and disposal of material flows containing hazardous pollutants requires a comprehensive approach that takes into account all these pollutants, releases / emissions and associated risks . Depending on what the components of these batteries contain, the research in them is similar to the research and study in the annual Guinness Book of Records due to the presence of a large and diverse amount of minerals and plastics. Therefore, this study was addressed to the types of common phone batteries and their physical and metal components, principles of recycling, and methods of physical and chemical treatment, in addition to To the methods of recovering cobalt and lithium, and we ask that this study will be useful, especially since its increase and neglect of its recycling represents a huge economic loss due to the precious metals it contains, as well as its neglect and dumping in public waste streams represents an environmental threat that has great dangers to the earth and humans.

Keywords: Lithium-ion battery (LiBs), precious components, recycling, cobalt, lithium.

STUDY OF THE EFFECTS OF ALKALINITY (NaOH) AND OVER POTENTIAL ON THE ELECTROCHEMICAL PRODUCTION OF SODIUM HYPOCHLORITE (NaOCl) Using A Batch Mode Electrolytic Cell

№ [3516]

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Abstract

In the present study, the electrochemical production of sodium hypochlorite (NaOCl) in a batch- mode electrolytic cell was kinetically investigated under variation of alkalinity (NaOH) and change of applied overpotential (potentials greater than the equilibrium potential i.e., 2.2 V) using iodometric titration technique. The starting concentration of NaCl was maintained at 12 w/v %., while the concentration of NaOH added and the overpotential applied were varied in the ranges 0.3 - 0.7 w/v % and 5-18 V, respectively. It has been found that the NaOCl production is generally enhanced by increasing alkalinity up to 0.5 w/v % NaOH and increase of the applied overpotential till 12 V. Interestingly, the best working conditions for enhancement of the electrochemical production of NaOCl in the batch reactor were seen at: 0.50 w/v % and 12 V; where the production rate was estimated to be 7.69.

Keywords: Sodium hypochlorite, Batch mode, Electrolytic cell.

BATCH ELECTROCHEMICAL PRODUCTION OF SODIUM HYPOCHLORITE: PH CHANGE AND INFLUENCE OF ALKALINITY

№ [3751]

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Abstract

The effect of using variable alkaline mediums; sodium carbonate, sodium hydroxide and ammonium hydroxide in different concentrations on on-site electrochemical production of sodium hypochlorite using a single batch electrolysis cell as studied by following up the rate of reaction and the p^H at specific time intervals. Generally the rate of production increase at 0.4 %w/v followed by 0.2 %w/v. Ammonia hydroxide was not suitable as alkaline medium because there was no significant increase in production rate at 0.2 %w/v0.4 %w/v , reaction was very slow and sodium hypochlorite did not firmed at higher concentration. The optimum P^H to get best production rate was between (8 -8.5).

Keywords: Sodium hypochlorite, Electrochemical production, Sodium chloride.

PREPARATION OF NANOSTRUCTURED Y_2O_2S POWDERS, DOPED WITH TERBIUM

№ [4016]

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Abstract

The new method of ultra-dispersed powders preparation of yttrium oxide doped with terbium and sulfur ions (green phosphor) obtained by thermochemical synthesis (combustion) have been studied. It is well known, that sulfur introduction into Y_2O_3:Tb phosphor improve significantly the light yield, but processes of the preparation and energy transfer at excitations need further investigation. Nanostructured Y_2O_2S:Tb powders were synthesized under the conditions of oxidation–reduction of nitrate salts of yttrium and terbium in the presence of thiourea (TU) and hexamethylenetetramine (HMTA) as a fuel. The method comprises the following steps: preparing the mixture $Y(NO_3)_3 \cdot 9\ H_2O$, $Tb(NO_3)_3 \cdot 9\ H_2O$, HMTA and TU to form a precursor; heat stirring and drying the mixture to form a gel-type precursor; heat treating the precursor at 650 °C in the muffle furnace to form a nanostructured powders. The average size of such prepared agglomerated powders was in the region of 5–50 mkm. After grinding and calcination on air at 700 – 1100 °C (1 hour) the size of powder particles was in the region of 50–100 nm. The precursors and powders were characterized by DTA, TG, IR-spectroscopy, X-ray diffraction (XRD), scanning electron microscopy (SEM) and spectral-luminescent analysis. It was shown that the obtained materials have bright luminescence with a maximum at a wavelength of 537 to 563,4 nm (green radiation) when excited at a wavelength of 250 nm, and the size of agglomerates and intensity of the radiation depends on the degree of dispersion and temperature of calcination.

Keywords: Y_2O_2S, Terbium, Nanostructure, SEM.

STUDY ON PHASE STABILITY OF MN(IV) DOPED BISMUTH VANADATE AND ITS VISIBLE- LIGHT PHOTOCATALYTIC ACTIVITY FOR DEGRADATION OF ORGANIC DYE

№ [4053]

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Abstract

A layered Aurivillius–perovskite type BIMNVOX compound with a general formula, $Bi_2Mn_x^{(IV)}V_{1-x}O_{5.5-(x/2)}$ was developed as an effective photocatalyst for degradation of organic dyes. A series of BIMNVOX.x catalysts in the composition range $0 \leq x \leq 0.20$ were successfully prepared using the standard solid– state reaction and characterized using X–ray diffraction (XRD), differential thermal analysis (DTA), UV–vis spectrophotometry and adsorption measurements. Then, the photocatalytic activities of synthesized catalysts were investigated for the first time through the photodegradation of crystal violet, CV dye in aqueous solution under visible light irradiation. Adsorption efficiency and photocatalytic activity of BIMNVOX.x catalysts were correlated well with the variation in phase crystal structures stabilized at room temperature as a function of composition. The stabilized β–BIMNVOX phase in the orthorhombic crystal system, space group Acam exhibited the best photocatalytic performance, though broadening band– gap energy. This can be attributed to their higher specific surface area, higher oxygen –vacancy concentration in the perovskite vanadate layers. In addition, the possible photocatalytic degradation mechanism of aqueous CV dye was clearly proposed.

Keywords: Photocatalyst, Crystal violet, BIMNVOX, Oxygen vacancies, Perovskite vanadate layers.

DEVELOPMENT OF SPECTROPHOTOMETRIC METHOD WITH ENHANCED SENSITIVITY FOR THE DETERMINATION OF NITRATE CONTAMINATION IN VEGETABLES

№ [4059]

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Abstract

Sensitive and environmentally friendly sequential method for the determination of nitrate in vegetables was proposed. The method was based on the use of a new combination of Griess reagents (sulfanilic acid and N(1-napthyl) ethylenediamine dihydrochloride) in solid form added directly to nitrate solution in acid medium. The method was optimized for the amounts of charcoal, zinc, diazo-coupling reagents and pH. The validated method had detection and quantitation limits of 0.022 and 0.066 ppm respectively. The dynamic linear range extended between 0.088 and 1.2 ppm (R2 = 0.9999). The method recovery in aqueous solutions was between 96.25% ∓4.40% and 99.70% ∓ 4.20% for seven measurements with an average of 98.52% ∓4.11% indicating high method accuracy and optimum conversion of nitrate to nitrite. The method was successfully applied for the determination of nitrate in two leafy crops (mint and coriander) and two root vegetables (white radish and carrot) collected from five different local markets in the capital of Yemen, Sana'a. The average recovery values of nitrate in the four vegetables matrices ranged between 95.63% and 107.50%. The assessment of nitrate in the vegetable's samples revealed that carrots contained the least amount of nitrate (77.90 mg/kg) among the tested vegetables flowed by white radish (641.84 mg/kg), mint (786.86 mg/kg) and coriander (1740.00 mg/kg). The data of the present study confirmed that the proposed method has the required sensitivity to determine nitrate bellow the regulated level in various kinds of leafy and root vegetables.

Keywords: Gries reagents, Nitrate, Nitrite, N-(1- naphthyl) ethylenediamine dihydro chloride, UV-Vis spectrophotometry, sulfanilic acid, vegetables.

THE TREASURES OF PRINTED CIRCUIT BOARDS IN CELL PHONE SCRAP AND THE DANGERS OF CONCERN

№ [4306]

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Abstract

Telephones play a greater role than ever in global use and the modern telephone industry depends on a variety of resources consisting largely of precious and rare metals, and it is true that some of these mineral sources are common and still available, such as iron ore and aluminum, but others such as Cobalt and indium, these are rare elements and will not last long at current rates of consumption. The problem with the foregoing is that the extractive industries extract irreplaceable mineral resources from the earth's crust, where the use of mineral resources is closely related to technology, energy and the environment, and usually causes disturbances in one field and the presence of disturbances in the other, and the use of motivational devices from phones requires minerals Of the platinum group, which is a valuable and irreplaceable natural resource, moreover, the short lifespan of mobile phones leads to an increase in electronic waste from phones, and because the recycling systems are very low, it follows that scrap waste from phones goes to public waste streams and thus The precious metals contained in that electronic scrap are lost, and this is first, and secondly, this waste has become a cause for concern because of the elements and components it contains that cause environmental pollution and various health diseases. In this study, the components of phones and vehicles were reviewed and how to recycle printed circuit boards. Which are found in mobile phone scrap.

Keywords: Mobile phones, Discarded printed circuit boards, Recycling.

PHOTOCATALYTIC DEGRADATION OF ORGANIC DYES IN AQUEOUS MEDIA UNDER VISIBLE - LIGHT IRRADIATION USING AURIVILLIUS - TYPE BICRVOX CATALYSTS: DEVELOPMENT OF NEW EFFICIENT PHOTOCATALYSTS FOR ENVIRONMENTAL APPLICATIONS

№ [4432]

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Abstract

A layered perovskite – type designated as BICRVOX.x ($Bi_4Cr_x^{III}V_{2-x}O_{11-3x/2}$) belonging to the Aurivillius family has been synthesized in the composition range of $0.05 \leq x \leq 0.20$, by the citrate – ethylene glycol sol- gel route followed with the microwave- assisted calcination of resulting xerogels. The present study has been devoted to investigate the effect of Cr(III) doping on phase stability, optical properties and photocatalytic efficiency of Aurivillius type $Bi_4V_2O_{11}$. In this investigation, many analytical methods, such as X-ray powder diffraction (XRPD), differential thermal analysis (DTA), thermogravimetric analysis (TGA), Fourier transform- infrared spectroscopy (FT-IR), nitrogen adsorption equipment and UV-VIS spectrophotometry, have been employed. Methylene blue (MB) has been used here as a dye model in aqueous medium to investigate the photocatalytic efficiency of as-prepared BICRVOX.x series under visible- light irradiation. It has been found that the photocatalytic degradation of MB proceeds more rapidly in the compositional range of γ'-phase stabilization, particularly γ'- BICRVOX.15 exhibiting the highest value of apparent velocity constant (k_{app} = 13.22×10^{-3} min^{-1}), irrespective of the lowest value of its band- gap energy (E_g = 1.64 eV). This unexpected variation may be attributed to the increased crystallinity of γ'-BICRVOX phases (i.e. x = 0.13 and x = 0.15) which interfered with UV-VIS spectrophotometric measurements.

Keywords: Photocatalysts, BICRVOX.*x*, Methylene blue.

IRON (II)-CATALYZED TRANSFORMATION OF UNSATURATED HYDROCARBONS TO SECONDARY ALCOHOLS AS INTERMEDIATE FINE CHEMICALS UNDER THE AEROBIC CONDITIONS

№ [4479]

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Abstract

The transformation terminal and internal alkynes to alcohols as weak acids is investigated by using FePC-catalyst with excellent efficiency promotion. $NaBH_4$ is catalyst has significantly supported the catalytic efficiency of terminal and internal alkynes to secondary alcohols following addition and elimination mechanism. The production of secondary alcohols significantly important as intermediate fine chemicals in industrials process agro-chemical and pharmaceuticals. Adding the $NaBH_4$ to the reaction mixture is promoted the catalytic efficiency of Fe(ll) with water free solvent. The hydroxy-addition to carbon-carbon terminal alkynes and form secondary alcohols follow anti-Markovnikov's rule of addition reaction. Despite its proven evasiveness, we were compiling this reaction, indirect oxidation/reduction sequence requiring iron phthalocyanine stoichiometric of alkynes in this present methodology. In this work, we report a more direct approach that alkynes are transformed to secondary alcohols in room temperature, under oxygen of atmospheric air, in one pot. in the absence of $NaBH_4$, the product of secondary alcohols was no found. Therefore, adding the extra oxygen have assisted hydroxylated phenyl acetylene and its derivatives producing a good yield of the phenyl ethanol with excellent region selectivity.

Keywords: Iron catalyst, alkynes, alcohol, transformation, transformation.

INVESTIGATION OF FORMATION OF COLD LIVER OIL/WATER MICROEMULSION IN THE PRESENCE OF CETYLTRIMETHYLAMMONIUM BROMIDE (CTAB) AND LAURYL ALCOHOL (LA)

№ [5324]

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Abstract

The physical characteristics of the O/W microemulsion made from the surfactant cetyltrimethylammonium bromide (CTAB), cold liver oil, water, and lauryl alcohol (LA) as a non-ionic cosurfactant were investigated using electrical conductivity and hydrodynamic viscosities at various temperature and different oil additions. The range of concentration CTAB ranged from 1× 10^{-3} M to 2 × 10^{-2} M. Through the aid of the level of the critical micelle concentration (CMC) and the typical free energy of micellar (G^{o}_{m}) dissociation (α) micellization was assessed. Also discovered is that the growth of the CMC of CTAB is gradually accompanied by a starting at 25 °C to 55 °C It is obvious to see that the CMC of CTAB continues to rise when more cold is introduced. increased by liver oil. In light of the findings from this study, it can the usage of CTAB is advised for micellization in watery medium and the creation of optical or water emulsions or microemulsions would have many applications in the future, especially in the production of pharmaceuticals and cosmetics.

Keywords: Surfactants, Microemulsions, Cetyltrimethylammonium bromide, cold liver oil, Lauryl alcohol, CMC, electrical conductivity.

ELEMENTAL ANALYSIS OF SOME VEGETABLES CULTIVATED IN DELTA TUBAN, LAHEJ GOVERNORATE -YEMEN

№ [5542]

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Abstract

This study involves identifying the levels of some essential and heavy elements (i.e., sodium (Na), potassium (K), magnesium (Mg), phosphorus (P), calcium (Ca), chromium (Cr), manganese (Mn), iron (Fe), cobalt (Co), nickel (Ni), copper (Cu), zinc (Zn), arsenic (As), cadmium (Cd), and lead (Pb)) in red onion (Allium cepa L.) bulbs and leaves, white radish (Rphanus sativus L.) roots and leaves, and cucumber (Cucumis melo var.) fruit cultivated in three distinct villages (Haran Dian, Althaalab and Abrlasloom) in Delta Tuban (Lahij Governorate/ Yemen). The collected samples had been wet digested using aqua regia. Then, metal concentrations were measured using inductively coupled plasma-optical emission spectrometry (ICP-OES). All samples showed high concentrations of essential elements. On the other hand, heavy metals (Mn, Fe, and Cu) exceeded the limit allowed by FAO/WHO while Zn was under allowed limits. Moreover, Cr, Co, Ni, As, Cd, and Pb revealed varied rang of concentration levels in the targeted samples.

Keywords: Essential elements, Heavy elements, Vegetables of Lahij, Concentration determination.

BIOSYNTHESIS OF ZnO NANOPARTICLES USING AQUEOUS EXTRACT OF PROPOLIS: CHARACTERIZATION AND ANTIMICROBIAL ACTIVITY

№ [5885]

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Abstract

This research represents a simple project to solve the problem of water pollution and some diseases through the biosynthesis of zinc oxide nanoparticles, using propolis aqueous extract. The size of these nanoparticles ranged between 12.78nm and 54.95nm and their shape was approximately hexagonal, and these results were confirmed by transmission electron microscope (TEM) and X-ray diffraction. The antimicrobial activity of these particles was studied using different strains of microbes, Gram-positive bacteria (Bacillus Subtilis and Staph. Aureus), Gram-negative bacteria (Escherichia Coli and Pseudomonas Aeruginosa), and fungal microorganisms (Candida Albicans and Mucor). The study showed the ability of these nanoparticles to inhibit waterborne pathogen and some fungal pathogens more efficiently than Gentamicin (an antibiotic).

Keywords: ZnO, nanocrystals, Escherichia Coli, Candida Albicans, propolis XRD, UV-absorption.

SOL-GEL DERIVED POLYVINYL ALCOHOL/SILICA HYBRID FILMS

№ [7813]

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Abstract

Polymer-inorganic nanocomposite materials, in which polymers serve as hosts for inorganic nanoparticles, are promising materials for many applications due to their extraordinary properties. The combination of these two different building blocks at a molecular level could provide novel properties that are not obtained from conventional organic or inorganic materials. The sol-gel method is a common process to synthesize polymer-inorganic nanocomposites. It consists of an initial hydrolysis reaction, a subsequent condensation reaction followed by removal of the solvents, resulting in formation of metal oxides. Poly(vinyl alcohol) (PVA), a water soluble hydrophilic polymer, has been studied intensively for membrane applications because of its good chemical stability, film-forming ability and high hydrophilicity. However, PVA has poor stability in water. Among various insolubilisation techniques, hybridization between PVA and inorganic particles has received significant interest as it not only restricts the swelling of PVA but also provides the inherent advantages of the organic and inorganic compounds.

The hybrid films were prepared via a sol-gel route by using tetraethoxysilane (TEOS) as the silica precursor with HCl acid as an hydrolyzed agent. The resulting hybrid films with varying silica contents were characterized with SEM and XRD techniques. Ours studies have shown that introducing an inorganic component derived from Si-containing precursors (TEOS) into PVA can form homogeneous composite films with enhanced physicochemical stability.

Keywords: polyvinyl alcohol/silica, Sol-gel, SEM, XRD.

THERMAL TREATMENT OF NATURAL CARBONATE CATALYST FOR BIODIESEL PRODUCTION FROM YEMENI JATROPHA OIL

№ [7882]

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Abstract

In this paper, heterogeneous catalysts based on natural dolomite mineral in the transestrification of Jatropha oil into biodiesel. Investigating the applicability of natural basic carbonate minerals as potential catalysts in biodiesel production from Yemeni Jatropha oil. The effect of thermal treatment of these minerals had been addressed and correlating the catalytic behavior with the surface properties of these systems was attempted. XRD measurements show that the dolomite mineral is highly crystalline with small amounts of calcite. Increasing the temperature of thermal treatment up to 500 °C has no significant effect on the X-ray diffraction patterns, but upon further increase of the temperature to 600 °C the dolomite phase was found to decompose due to the decarbonisation of $MgCO_3$. Temperatures as high as 800oC were found to be necessary to start the thermal decomposition of calcium carbonate, but appreciable amounts of calcite remain even after several hours of thermal treatment at 800 °C. The transestrification of Jatropha oil was conducted at 60°C with a methanol-to-oil molar ratio of 6:1. Dolomite samples thermally treated up to a temperature of 700 °C showed only low activities in the transestrification of Jatropha oil (conversion ~20%). Raising the temperature of thermal treatment to 800 °C increased the activity significantly to 95%-conversion, apparently due to the formation of strongly basic CaO. It was found that heating the mineral for at least 30 minutes at 800 °C is necessary to produce a highly active system. The optimum catalyst-to-oil mass ratio was determined to be 1:50.

Keywords: Dolomite, Transestrification, Biodiesel, Thermal treatment, Heterogeneous catalysts.

CONSTRUCTION AND PERFORMANCE CHARACTERIZATION OF ION SELECTIVE ELECTRODES FOR POTENTIOMETRIC DETERMINATION OF CLINDAMYCIN AND NORFLOXACIN IN PURE FORMS AND IN PHARMACEUTICAL FORMULATIONS

№ [8247]

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Abstract

New clindamycin (CLM) and norfloxacin (NOF) selective electrodes of the conventional polymer membrane type have been constructed. These electrodes are based on incorporation of clindamycin-tetraphenylborate (CLM-TPB) and norfloxacin-tetraphenylborate (NOF-TPB) ion-pairs in a poly (vinyl chloride) (PVC) using dioctylphathalate (DOP) as plasticizer. The electrodes are fully characterized in terms of the membrane composition, ionic strength, temperature and pH. The electrodes were applied for potentiometric determination of clindamycin and norfloxacin in pure solutions and in pharmaceutical formulations. The sensors showed fast, stable and Nernstian slope over the concentration range $1.0x10^{-5}$ – 1.0×10^{-2} M and 5×10^{-6} – 1.0×10^{-2} M for clindamycin and norfloxacin drug, respectively. The recovery percent ranged from 96.37 to 98.42 with relative standard deviations ranged from 0.85 to 3.62 %. The constructed electrodes exhibit good selectivity with respect to a large number of inorganic cations, sugars and other component of the investigated mixed drugs. The results obtained were statistically compared to reference and reported methods and there were no significant differences, as revealed by F-and t-tests.

Keywords: Ion- selective electrode, Clindamycin, Norfloxacin, Sodium tetraphenyl borate.

SiO_2:Zn° THIN FILMS PREPARED BY SOL-GEL ROUTE AND DEPOSITED USING PULSED LASER EVAPORATION: STRUCTURE, MORPHOLOGY, AND OPTICAL AND ELECTRICAL PERFORMANCE

№ [8570]

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Abstract

Thin films based on SiO_2 and Zn° were deposited to silicon and quartz substrates by pulse laser assistance with SiO_2:Zn°-target, synthesized by sol-gel technology. The peculiarities of structure as well as the electrical and optical properties of films were obtained in correlation with composition of the SiO_2:Zn°-target. The frequency dependence of the dielectric permeability (ε) of the films SiO_2:Zn° has shown its decrease in the range of 10 kHz – 1 MHz. The analysis of the films absorption spectra in the vision range has given the ground for proposal to consider of formation of capsulated zinc nanoparticles at high Zn° content. It is confirmed by increasing the optical width of the prohibited zone from 2.5 to 3.3 eV and absorption growth in the range of 590–650 nm. The films obtained can be used for coatings of the solar batteries for the increasing of solar energy absorption.

Keywords: Sol-gel method, SiO_2:Zn°target, Thin film, Nanoparticle, Pulsed laser evaporation, Electrical properties, Optical parameters.

STUDY OF PHYSIOCHEMICAL PROPERTIES OF CETYL TRIMETHYL AMMONIUM BROMIDE (CTAB) SURFACTANT: ITS MICELLIZATION, ALMOND OIL WATER EMULSIFICATION AND INDUSTRIAL APPLICATIONS

№ [8868]

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Abstract

This The present study was devoted to investigate the effect of addition of cetyltrimethylammonium bromide (CTAB) and lauryl alcohol (LA) on the formation of o/w microemulsions from almond- water system. Two techniques were used in this study, namely electrical conductivity and hydrodynamic viscosity, which revealed the enhanced micellization and solubilization of almond oil in water. This was indicated by the variations of critical micelle concentration, degree of micelle ionization, and thermodynamic parameters as a function of oil addition and temperature.

Keywords: Surfactant, Microemulsions, Almond oil, emulsification, Lauryl alcohol, CMC, CTAB, Electrical conductivity.

BIODEGRADABLE COMPOSITE MATERIALS BASED ON POLYMERS MATRIX AND ORGANIC FILLER

№ [9218]

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Abstract.

The biodegradable agro-fillers polymer composite could be an alternative to the conventional plastic materials. These polymers composite being biodegradable can be disposed in safe and ecologically effective manner, through composting or burial in the soil. Natural fibers from agricultural wastes are finding their importance in the polymer industry due to the many advantages such as their light weight, low cost and being environmentally friendly. As a type of natural fiber obtained from agro industrial waste, rice husk and sunflower husk can be used as fillers in composites materials in various polymer matrices.

The biodegradable composites on base of polymer matrix (polypropylene, polylactide) and organic filler powders are prepared in the form of pressed disks and extrusion bands. In the quality of organic fillers are used the rice and sunflower husk powders with particles dimension up to 0,5 mm. It is established that the composite material in the system «husk - polymer» contains the particles of filler disposed in polymer matrix randomly as confirmed by scanning electron microscopy. The composites «sunflower husk (Ukraine) - polylactide INGEO™ - 4043d» where produced in the disk forms by hot pressing method. Rice husk-filled polypropylene composite bands were prepared by extrusion method. The materials after preparation have been subjected to biological decomposition in the laboratory composting conditions.

Keywords: Biodegradable composite, polymers, polypropylene, polylactide.

STUDY OF PHYSIOCHEMICAL PROPERTIES OF SODIUM DODECYL SULPHATE SURFACTANT: IT'S MICELLIZATION, OIL IN WATER EMULSIFICATION AND INDUSTRIAL APPLICATIONS

№ [9767]

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Abstract

Surfactants play an important role in many industries such as cosmetics, perfumes, medicines, and foods, as they are widely recognized due to the diversity of their structures and their analysis, and are responsible for the formation of O/W or W/O emulsions as reported in the literature. The current work presented an investigation on the physicochemical properties of sodium dodecyl sulfate (SDS) and its effect on the formation of sesame oil/ water microemulsion in the presence of lauryl alcohol (LA) as a cosurfactant using electrical conductivity and hydrodynamic viscosity measurements. It has been found that the critical micelle concentration (CMC) of SDS in the aqueous environment is 10.75 × 10^{-3} M, which is consistent with its literature value reported. It was observed that the CMC gradually decreases with increasing temperature. However, the variation in the degree of micelle ionization with temperature showed a maximum and minimum at 35 ^{O}C and 45 ^{O}C, respectively. The variation of Gibbs free energy of SDS micellization as a function of temperature. Indicated that the SDS micellization in aqueous media is a spontaneous process and is thermodynamically favorable. It was clearly noticed that the CMC of SDS goes on increasing with the addition of sesame oil. which was also reflected by a gradual drop in the relative viscosity as the oil % increases. This may be attributed to the fact that oil droplets undergo fractioning and then get emulsified in the hydrophobic cores of SDS micelles. Because of such emulsification, the size of SDS micelle increased, and consequently higher concentrations of SDS would be required to reach an equilibrium micellization with the further addition of oil as a disperse phase. The effectiveness of SDS on emulsification demonstrated the ability of SDS surface hypotension in the formation of Microemulsions. Accordingly, SDS can be used as a powerful emulsifying agent to minimize the surface tension in the water medium and produce Microemulsions that would have many promising future applications.

Keywords: Surfactants, Microemulsions, Sodium dodecyl sulfate, Sesame oil, Lauryl alcohol, CMC, electrical conductivity.

Track (8)

Administrative Sciences

إستخدام الشبكات العصبية الاصطناعية في المراجعة الخارجية والمحاسبة

№ [223]

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قسم المحاسبة، كلية العلوم الادارية، جامعة اب، اب، اليمن.

الملخص

هدفت الدراسة الى التعرف: على الاستخدامات الحالية للشبكات العصبية الإصطناعية كأحد تقنيات الذكاء الاصطناعي في مجال المراجعة الخارجية والمحاسبة اذ تتجسد مشكلتها في عدم اعتماد القائمين على مهنة المحاسبة والمراجعة على الاساليب التقنية الحديثة المتوفرة متمثلة بالشبكات العصبية الاصطناعية حتى تتمكن من الوفاء بمتطلبات التحديات الراهنة التي تواجه منظمات الاعمال

وتظهر اهمية الدراسة من خلال : تزايد الحاجة الى استخدام التكنولوجيا الحديثة من قبل المراجعين والمحاسبين لأداء مهامهم بسرعة ودقة اعلى فضلاً عن المزايا المتعددة التي توفرها الشبكات العصبية الاصطناعية كونها احدى أبرز التكنولوجيات الحديثة المستخدمة في عدة مجالات.

وخلصت الدراسة الى مجموعة من الاستنتاجات منها: تفوق الشبكات العصبية الاصطناعية على التقنيات التقليدية المستخدمة في مجال المحاسبة والمراجعة وتم تقديم مجموعة من التوصيات أهمها: ضرورة تفعيل استخدام الشبكات العصبية الاصطناعية – كأحد تقنيات الذكاء الاصطناعي في مجال المراجعة الخارجية والمحاسبة، لقدرتها العالية في الكشف عن الغش والاحتيال في التقارير المالية.

الكلمات المفتاحية: الذكاء الاصطناعي، الشبكات العصبية الاصطناعية، جودة المراجعة الخارجية والمحاسبة.

معوقات تطبيق الإدارة الإستراتيجية في جامعة عدن دراسة ميدانية- لآراء عينة من القيادات العليا بالجامعة

№ [1430]

لبيب محمد نعمان قاسم
قسم ادارة الاعمال، كلية العلوم الإدارية، جامعة عدن، عدن، اليمن

الملخص

هدفت الدراسة إلى تحديد معوقات تطبيق الإدارة الإستراتيجية في جامعة عدن من وجهة نظر قيادات الإدارة العليا.بالجامعة ولأجل تحقيق أهداف الدراسة قام الباحث بوضع السؤال الرئيس الاتي : ما هي معوقات تطبيق الإدارة الإستراتيجية بجامعة عدن من وجهة نظر قيادات الإدارة العليا؟

ولأجل اختبارها تم إذ طورت استبانة وزعت على عينة الدراسة وعددها (110) استبانة عاد منها (108) استبانة وبنسبة استجابة بلغت (98%)، ومن بين الاستبانات المعادة هناك (4) استبانات غير صالحة للتحليل الاحصائي وبذلك فإن نسبة الاستبانات التي حللت من إجمالي الاستبانات هي (90%) وهي نسبة عالية جدًا، وحيث تم استخدام المنهج الوصفي والاستقرائي والمنهج التحليلي.

وقد توصلت هذه الدراسة للنتائج أهمها كالآتي: أن أهم المعوقات التي تحد من تطبيق الإدارة الإستراتيجية في الجامعة كانت (عدم وضوح الرؤية والرسالة والأهداف للجامعة) تأتي بالمرتبة الأولى وبنسبة (94.2%).

الكلمات المفتاحية: الإدارة الاستراتيجية، جامعة عدن، قيادات الجامعة.

نظام التنظيم الحكومي لهياكل الأعمال وخصائصه في سياق الأزمة الاقتصادية في ليبيا

№ [1489]

رمضان أحمد أتنيشه[1]، نتاليا سيتشيفا[1†]، مروان فرحان سيف الكمالي[2,*]، ورده العجمي الهميلي[3]

[1] قسم الاقتصاد ، جامعة سوخوي التقنية الحكومية في جوميل ، جوميل ، بيلاروسيا.

[2] معمل السيراميك التقني والمواد النانوية ، قسم علوم المواد في الهندسة الميكانيكية ، جامعة سوخوي التقنية الحكومية في جوميل ، جوميل ، بيلاروسيا.

[3] قسم تشغيل أنظمة تكنولوجيا المعلومات ، أكاديمية بيلاروسيا الحكومية للاتصالات، جامعة سوخوي التقنية الحكومية في جوميل ، جوميل ، بيلاروسيا.

الملخص

الحاجة إلى انتقال المجتمع إلى نموذج للتنمية الاقتصادية المستدامة من قبل العديد من العلماء مع تفاقم المشاكل الاجتماعية والاقتصادية العالمية ، والتي تعتبر اليوم بشكل متزايد نتيجة لتسارع عولمة العلاقات الاقتصادية العالمية .وفقًا للعلماء ، على مدار الخمسين عامًا القادمة ، ستكون العولمة القوة الدافعة وراء تطور الاقتصاد العالمي ولا شيء يمكن أن يوقف هذه العملية . في ظل هذه الظروف ، لا يمكن التنفيذ الفعال لأهداف وغايات التنمية المستدامة لهياكل الأعمال إلا إذا تم أخذ تأثير العولمة على تشكيل مسار هذا التطور في الاعتبار .يتطلب تشكيل آلية تنظيمية واقتصادية مبتكرة مناسبة لعواقب هذا التأثير تحسين نماذج الأعمال القائمة على دراسة العلاقة بين عمليات العولمة وضمان التنمية المستدامة لهياكل الأعمال في الاقتصاد العالمي .هذه الدراسات هي التي ستحدد أكثر الأساليب والأدوات فعالية لعمل كيانات الأعمال .توقعًا لتحليل العلاقة بين العولمة وعملية تطوير الهياكل التجارية ، سننظر في جوهر وعلامات العولمة كظاهرة محددة للتطور الحديث وتحديد الاتجاهات الرئيسية في انتشارها التي تؤثر على عمليات تنفيذ مهام التنمية الاقتصادية المستدامة .في هذه البحث يتم دراسة نظام التنظيم الحكومي لهياكل الأعمال وخصائصه في سياق الأزمة الاقتصادية في ليبيا وماهي الحلول الممكنة لتحسينها.

الكلمات المفتاحية: الآلية التنظيمية والاقتصادية،الاقتصاد الليبي،المشروعات الصغيرة والمتوسطة،التخطيط الاستراتيجي،المؤسسات، الابتكارات التنموية.

الشمول المالي- مفاهيم ومؤشرات عربية وعالمية: دراسة نظرية

№ [1505]

منادي النجار

قسم المحاسبة، كلية العلوم الإدارية والمالي، جامعة إقليم سبأ، مأرب، اليمن.

الملخص

تمثلت مشكلة الدراسة في نقص الأدبيات السابقة من المؤسسات الأكاديمية والبحثية العربية ويعتبر الشمول المالي من المواضيع الحديثة والأكثر تداولاً وبروزاً على الساحة الدولية في الآونة الأخيرة، ويكمن الهدف من هذه الدراسة في تقديم إطار نظري وخلفية علمية لطبيعة الشمول المالي وواقعه في الوطن العربي، ونظراً لكون هذه الدراسة تسعى للتعرف على مفهوم حديث لم تعنّ به الأدبيات العربية لذا تسعى الدراسة الحالية إلى سد الفجوة المعرفية من خلال بيان ماهية الشمول المالي ونشأته، والتعرف على أهدافه ومحدداته، وايضاً دراسة وتحليل العوامل التي قد تؤثر على بعض مؤشرات الشمول المالي في الدول العربية، وتوصلت الدراسة إلى عدة نتائج منها: إن الشمول المالي يمثل حلقة وصل بين كلاً من التطور الاقتصادي وتقليص معدلات الفقر والبطالة فهو يساهم في تسهيل حصول أصحاب الأفكار المبتكرة على التمويل للقيام بمشاريعهم الصغيرة ومتناهية الصغر وذلك يزيد من فرص العمل الذي بدوره يخفض الفقر والبطالة، كما أفادت الدراسة أنّ المنطقة العربية لا تزال تسجل أدنى مستويات الشمول المالي عالمياً بحسب التقرير الصادر من**The Global Findex Database** لعام (2021) ويمكن القول بأن الفقر ينعكس سلباً على مستوى الشمول المالي.

الكلمات المفتاحية: الشمول المالي، مؤشرات الشمول المالي، محددات الشمول المالي.

الإعلان المصرفي من خلال المؤثرين على مواقع التواصل الاجتماعي وأثره في تعزيز الصورة الذهنية للبنك لدى العملاء: دراسة حالة بنك الكريمي، اليمن

№ [1664]

خالد حسن الحريري [1،*]، ليث جازم غالب [1،2]

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[2] قسم التسويق، كلية العلوم الإدارية، جامعة تعز، تعز، اليمن.

الملخص

هدف البحث الى التعرف على تأثير الإعلان المصرفي من خلال المؤثرين على مواقع التواصل الاجتماعي بأبعاده (خصائص الإعلان، خصائص المؤثرين المستخدمين في الإعلان) لبنك الكريمي، اليمن؛ في تعزيز الصورة الذهنية للبنك لدى عينة بلغت (406) مفردة من عملاء البنك المستخدمين لمواقع التواصل الاجتماعي في اليمن. واعتمد الباحثان على المنهج الوصفي التحليلي، من خلال استخدام الاستبانة كأداة للدراسة في جمع البيانات الأولية من أفراد العينة ، واستخدام بعض الأساليب الإحصائية المناسبة لتحليل بيانات البحث، واظهرت نتائج البحث ان تقييمات أفراد العينة لخصائص الإعلان المصرفي عن البنك من خلال المؤثرين وخصائص المؤثرين على مواقع التواصل الاجتماعي المستخدمين في إعلانات بنك الكريمي المصرفية جاءت بدرجة متوسطة من وجهة نظر افراد العينة من عملاء بنك الكريمي. كما اظهرت نتائج البحث وجود اثر ذو دلالة إحصائية عند مستوى دلالة (0.05≥) للإعلان المصرفي عن البنك من خلال المؤثرين على مواقع التواصل الاجتماعي بأبعاده (خصائص الإعلان، خصائص المؤثرين المستخدمين في الإعلان) في تعزيز الصورة الذهنية للبنك لدى العملاء.

الكلمات المفتاحية: الإعلان المصرفي، المؤثرين، مواقع التواصل الاجتماعي، الصورة الذهنية، بنك الكريمي، اليمن.

THE IMPACT OF OCCUPATIONAL HEALTH AND SAFETY SYSTEMS ON EMPLOYEES' PERFORMANCE IN YEMEN'S OIL AND GAS COMPANIES (A CASE STUDY OF PETROMASILA COMPANY)

№ [3466]

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Abstract

This study aimed to assess the extent of implementing occupational health & safety (OH&S) systems in PetroMasila Company, to explore the relationship between OH&S systems and employees' performance, and to identify the impact of OH&S systems on employees' performance in PetroMasila Company. A descriptive analytical survey design was adopted and a primary data were obtained through e questionnaire which was designed and administered to 228 employees out of total 560 employees. The study was based on a simple random sampling. The data were analyzed through SPSS V.24 using a descriptive statistical tool namely frequencies, percentages, means, standard deviations and related weights to determine the extent of implementing OH&S systems while inferential statistical analysis tools such as correlation and regression were used to determine and explain the relationship and the impact of OH&S systems with employees' performance. The study showed that the extent of implementing OH&S systems in PetroMasila Company was high. The correlation analysis revealed a strong positive relationship between OH&S systems and employees' performance in PetroMasila Company. The regression analysis indicated that all OH&S systems combined or independent affect employees' performance.

Keywords: OH&S Systems, Employees Performance, PetroMasila Company.

اختبار العلاقة السببية بين الإنتاج الصناعي والنمو الاقتصادي في اليمن للفترة (1990 – 2017م)

№ [3911]

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قسم الاقتصاد، كلية العلوم الإدارية، جامعة تعز، تعز، اليمن.

الملخص

هدفت الدراسة إلى اختبار العلاقة السببية قصيرة الأجل وطويلة الأجل بين معدل نمو الإنتاج الصناعي ومعدل النمو الاقتصادي في اليمن، باستخدام بيانات سنوية للمتغيرين في الفترة (1990-2017م)، ولتحقيق الهدف استخدمت الدراسة اختباري ديكي- فولر الموسع (ADF) وفيليبس- بيرون (P.P) ؛ للتحقق من استقرارية السلسلتين الزمنيتين، ونموذج تصحيح الخطأ (ECM) ؛ للتحقق من وجود العلاقة بين المتغيرين، كما استخدمت الدراسة اختبار سببية جرانجر(Granger) ؛ للتأكد من وجود العلاقة السببية قصيرة الأجل، واختبار سببية تودا- ياماموتو (Toda-Yamamoto) ؛ للتحقق من وجود العلاقة السببية طويلة الأجل، وقد توصلت الدراسة إلى وجود علاقة سببية ثنائية الاتجاه في الأجلين القصير والطويل بين معدل نمو الإنتاج الصناعي ومعدل النمو الاقتصادي في اليمن، وأوصت الدراسة بالعمل على تحسين تنافسية الاقتصاد اليمني، وتحسين بيئة ممارسة الأعمال، مع العمل على إنشاء المناطق الصناعية، وتوسيع القاعدة الإنتاجية للصناعات التحويلية.

الكلمات المفتاحية: الإنتاج الصناعي، النمو الاقتصادي، نموذج تصحيح الخطأ، سببية جرانجر، سببية تودا ياماموتو..

دراسة قياسية لأثر عرض النقود على بعض متغيرات الاقتصاد الكلي في الجمهورية اليمنية للفترة (1990 – 2017م).

№ [5307]

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قسم الاقتصاد، كلية العلوم الإدارية، جامعة تعز، تعز، اليمن.

الملخص

ركزت الدراسة على مناقشة واقع عرض النقود ومتغيرات الناتج المحلي الإجمالي الحقيقي، ومعدلات التضخم، وسعر الصرف، وعجز الموازنة العامة وأوضاعهم الراهنة في الاقتصاد اليمني خلال الفترة (1999 – 2017م)، وكذلك قياس وتحليل أثر عرض النقود على متغيرات الدراسة في الجمهورية اليمنية، من خلال إجراء دراسة قياسية لمعرفة الأثر والعلاقة السببية في الأجلين القصير والطويل، واستخدمت الدراسة في ذلك منهج التكامل المشترك وفقا لجوهانسون Johansen، ونموذج متجه تصحيح الخطأ VECM، واختبارات السببية لجرانجر، وتوصلت إلى عدم وجود سببية في الأجل الطويل بين عرض النقود والناتج المحلي الإجمالي الحقيقي، ووجود سببية في الأجل الطويل بين عرض النقود والتضخم، وكذلك بين عرض النقود وسعر الصرف، وبين عرض النقود وعجز الموازنة العامة، إذ كانت معلمة تصحيح الخطأ ECT سالبة ومعنوية، ووجود تأثير معنوي وإيجابي في المدى القصير لعرض النقود على الناتج المحلي الإجمالي الحقيقي، وتأثير سلبي ومعنوي في المدى القصير للتضخم على الناتج المحلي الإجمالي الحقيقي، وأوصت بضرورة التحكم في الإصدار النقدي، وذلك بإبعاد كمية النقود الزائدة وتنظيم الإصدار النقدي في الجمهورية اليمنية بما يتماشى والقوة الإنتاجية للاقتصاد، ودعم الاستقرار النسبي لسعر صرف الريال اليمني، والعمل على توحيد النظام النقدي والمصرفي بتوحيد البنك المركزي والسلطة النقدية والعملة المتعامل بها في جميع أنحاء الجمهورية اليمنية، وتوحيد جهود السلطتين النقدية والمالية لمعالجة معدلات التضخم المرتفعة، والعمل على تنويع مصادر تمويل الموازنة العامة، والابتعاد عن سياسة التمويل بالعجز، والإصدار النقدي الجديد.

الكلمات المفتاحية: عرض النقود، الناتج المحلي الإجمالي الحقيقي، سعر الصرف، التضخم، عجز الموازنة، متجهة تصحيح الخطأ.

إدارة أزمة النشاط السياحي في محافظة تعز(السُّبل والآليات)

№ [5837]

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[2] قسم الإدارة الدولية، كلية المال والأعمال، جامعة الرواد، تعز، اليمن.

الملخص

إن ابتكار استراتيجيات، وخطط تضمن الرد السريع، والتعامل الآني مع الأزمات السياحية وإحداثياتها، واحدة من أهم السبل التي ينتهجها المدراء المتمرسون، في سبيل التقليل من حجم الآثار السلبية على الزوار، أو السياح، والصناعة بشكل عام. فالمقاصد، والأعمال السياحية، التي يتم تهيئتها بشكل جيد، تؤهل القائمين على إدارتها لوضع خطط استجابة سريعة، والعمل على تنفيذها، من أجل تجاوز المرحلة الحرجة، واستعادة النشاط المعتاد. وفي حين يكون الهدف هو إدارة أزمة النشاط السياحي، فإن المطلوبات تختلف من مكان لمكان، ومن زمان لآخر، لاعتبارات شتى فاليمن جزء من عالم اليوم بلا شك، لكنها الجزء الذي يختلف بنسبة كبيرة عن بقية دول الإقليم والعالم. فالحرب تقلل من فرص المقارنة، وتجعل من المواكبة في الشأن السياحي وغيره مضيعة للجهد والوقت والمال. ولذا يتقدم الباحث برؤية علمية منطقية، على أمل تحقيق نوع من التحسين على نحو لافت وجدير بالاعتناء. فالناس هنا وفي محافظة تعز خصوصاً، يستحقون أن يمنحوا فرصة للترفيه، أن يقضوا تجارب سياحية مثمرة في طيات زمن لا يؤمن بالسلام، ولا يرغب في التعايش. وفي هذا يستعرض الباحث آلية مواكبة لإدارة الأزمة السياحية الراهنة، من شأنها تحقيق دفعة نسبية بالنشاط السياحي الداخلي، وتستدعي مكاتب القطاع العام والخاص ترجمتها إلى أنشطة وبرامج على صفحات واقع المحافظة تعز، في سبيل ترميم ملامح الصناعة، والمساهمة في تجاوز الأزمة، وإعادة بناء النشاط السياحي عبر الأبعاد المشار إليها في سياق الورقة، وكلَ مسؤول في دائرة اختصاصه وسلطته نحو بلوغ الهدف عبر استراتيجيات وخطط وبرامج مدروسة، ومراحل مزمنة بدقة وإحكام.

الكلمات المفتاحية: إدارة الأزمات، التجربة السياحية، الأنشطة والبرامج السياحية، آليات التطوير السياحي، أزمة النشاط السياحي، محافظة تعز.

مقاربة فكرية منهجية حديثة لتطبيق نظام PPBES في تقويم الأداء المؤسسي في الجامعات اليمنية الأهلية

№ [7452]

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الملخص

تسعى الدراسة الحالية الى تحقيق مجموعة من الأهداف اكما يلي : إبراز أهمية تطبيق نظام *PPBES* (نظام التخطيط *Planning* ، و البرمجة *Programming*، وتقدير الميزانية *Budgeting*، والتقويم *Evaluation*) في تقويم الأداء المؤسسي في الجامعات الأهلية اليمنية ، توضيح أهمية البعد في نظام *PPBES* المؤثر في تقويم الأداء المؤسسي والاستفادة منه في الجامعات الأهلية اليمنية، نشر منهجية فكرية حديثة لـ نظام *PPBES* وكيفية استخدامه بين المديرين والعاملين والقائمين على الجامعات اليمنية الأهلية، تقديم تصور مقترح لتطبيق نظام *PPBES* لتقويم الأداء المؤسسي في الجامعات الأهلية اليمنية، تعتبر نتائج الدراسة وتوصياتها مساهمة فكرية وبحثية تضاف للباحثين في مجال تقويم الأداء المؤسسي ، واستخدمت الباحثة المنهج الأساسي النظري في جمع المعلومات ، وتم التطبيق على الجامعات اليمنية الأهلية، وتوصلت إلى مجموعة من النتائج وهي : أوضحت العلاقة بين نظام *PPBES* وتقويم الأداء المؤسسي ، وبينت البعد الأكثر تأثيراً من أبعاد النظام المؤثر في تقويم الأداء المؤسسي في الجامعات اليمنية الأهلية، وتوصلت أخيرا إلى صياغة رؤية منهجية فكرية لتطبيق نظام *PPBES* في تقويم الأداء المؤسسي في الجامعات اليمنية الأهلية.

الكلمات المفتاحية: مقاربة فكرية منهجية، نظام PPBES، تقويم الأداء المؤسسي، الجامعات اليمنية الأهلية.

أهمية تطبيق مراجعة النظير في تحسين جودة التدقيق الخارجي :دارسة ميدانية من وجهة نظر المدققين في مكاتب التدقيق في أمانة العاصمة – صنعاء

№ [7462]

طارق أحمد عبده الجماعي

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الملخص

هدفت هذة الدراسة الي التعرف على أهمية تطبيق مراجعة النظير في تحسين جودة التدقيق الخارجي من خلال استطلاع وجهات نظرعينة من المدققين بمكاتب المراجعة الخارجية، وتتلخص مشكلة الدراسة في التساؤل الآتي: ماهو إدراك المدققين في مكاتب التدقيق في أمانة العاصمة - صنعاء لأهمية تطبيق مراجعة النظيرفي تحسين جودة التدقيق الخارجي؟ وذلك من خلال إيجاد العلاقة بين أهمية تطبيق مراجعة النظير و تحسين جودة التدقيق الخارجي بأبعادها الثلاثة (معايير المراجعة الخارجية، آداب وقواعد السلوك المهني وتنظيم العمل بمكاتب المراجعة). وذلك باستخدام برنامج الحزمة الإحصائية للعلوم الاجتماعية (SPSS)، وتوصل الباحث إلى عدة نتائج منها:

1. أهمية تطبيق مراجعة النظير في تحسين جودة التدقيق الخارجي.
2. لا توجد فروق ذات دلاله إحصائية بين استجابة أفراد عينة الدراسة حول أهمية مراجعة النظير في تحسين جودة التدقيق الخارجي في مكاتب التدقيق في أمانة العاصمة تعزى لمتغير المؤهل العلمي، والمؤهل المهنى، وسنوات الخبرة.
3. أهمية تطبيق مراجعة النظير في تعزز الالتزام بمعايير المراجعة وبآداب وقواعد السلوك المهني وتنظيم العمل بمكاتب المراجعة.
4. تطبيق مراجعة النظير في مكاتب التدقيق؛ يحقق جودة عملية التدقيق، بشرط وضع المعايير والسياسات والإجراءات التي تضمن إستقلالية وسلامة التنفيذ.
5. وجود علاقة ذات دلالة إحصائية بين مراجعة النظير وتحسين جودة التدقيق.

كما أوصى الباحث بعدد من التوصيات، منها: ضرورة تطبيق مراجعة النظير لأهميتة في تحسين جودة التدقيق، مع قيام جمعية المحاسبين القانونيين اليمنيين والجهات المشرفة على مهنة المراجعة بوضع المعايير والسياسات والإجراءات التي تضمن استقلالية وسلامة التنفيذ، و ضرورة عقد دورات حول أهمية وكيفية تطبيق مراجعة النظير، و إنشاء إدارة عامة تابعة لجمعة المحاسبين القانونيين اليمنيين بالشراكة مع الجهات الإشرافية على مهنة التدقيق، (مع وضع شروط للعضوية بهذه الإدارة) للقيام بوضع الآليات اللازمة لتطبيق مراجعة النظير.

الكلمات المفتاحية: أهمية مراجعة النظير، جودة التدقيق الخارجي، برنامج تدقيق النظير، مكاتب التدقيق.

مشاكل عدم تحميل المصروفات التشغيلية غير المباشرة على المشاريع وتأثيرها على قائمة النشاط بالمنظمات الإنسانية

№ [8167]

عبد السلام محمد مهدي عيناء

قسم المحاسبة، كلية العلوم الإدارية والمالي، جامعة إقليم سبأ، مأرب، اليمن.

الملخص

هدفت الدراسة الى معرفة مشاكل عدم تحميل المصروفات التشغيلية والتسويقية غير المباشرة على المشاريع وتأثيرها على قائمة النشاط بالمنظمات الإنسانية، وذلك بالتطبيق على القوائم المالية لشبكة النماء للمنظمات الاهلية اليمنية التي تضم أكثر 425 منظمة إنسانية يمنية في عضويتها.

وتوصلت الدراسة الى عدد من النتائج من أهمها: ضعف دقة احتساب تكلفة المشاريع، وعدم قدرة مبلغ النسبة الإدارية بتغطية المصروفات التشغيلية والتسويقية غير المباشرة واستنفاذ عجز المشاريع الفائض المتحقق من الايرادات العامة، ولا تظهر بنود قائمة النشاط بشبكة النمأ للمنظمات الاهلية اليمنية بما يجب أن تكون عليه.

كما أوصت الدراسة بالعديد من التوصيات من أهمها: تبويب التكاليف في المنظمات الإنسانية بحسب الوظيفة أو بحسب نوع النشاط، وتضمين المصروفات التشغيلية ضمن تكلفة المشروع عند تسويقه للمنظمات المانحة والداعمة وألا يصرف على المشروع بأكثر مما جمع لها، وتحديد مراكز التكلفة بشكل واضح ودقيق.

الكلمات المفتاحية: المنظمة الانسانية، التكاليف غير المباشرة، النسبة الإدارية، المصروفات التشغيلية، المصروفات التسويقية، المصروفات الإدارية.

العدالة التنظيمية وعلاقتها بالارتباط الوظيفي: دراسة ميدانية بالتطبيق على أعضاء الهيئة الإدارية بجامعة إقليم سبأ

№ [8541]

غوية عبد الحق القبلي نمران*، هيفاء محمد عبد الله عطية

قسم إدارة الأعمال، كلية العلوم الإدارية والمالية، جامعة إقليم سبأ، مأرب، اليمن.

الملخص

تمثلت مشكلة الدراسة في الإجابة عن السؤال التالي: ما واقع العدالة التنظيمية وعلاقتها بالارتباط الوظيفي في جامعة إقليم سبأ؟ وبالتالي هدفت الدراسة إلى التعرف على طبيعة العلاقة بين العدالة التنظيمية بأبعادها، وبين الارتباط الوظيفي بأبعاده.

اعتمدت هذه الدراسة على المنهج الوصفي التحليلي الذي يتضمن استخدام الأسلوب الميداني في جمع البيانات، بوساطة الاستقصاء، وتحليلها إحصائيا لاختبار صحة فروض الدراسة، بالإضافة إلى استخدام المسح المكتبي والإفادة من مراجعة الدراسات السابقة، وبناء الخلفية النظرية للدراسة الحالية وقد تكون مجتمع الدراسة من جميع الإداريين في جامعة إقليم سبأ حيث تم تحديد حجم عينة الدراسة بناءً على الجداول الإحصائية والتي بلغت (120) مفردة لمجتمع دراسة يتكون من (218) عنصر، وقد تم استخدام إجراءات العينة العشوائية البسيطة، واتضح أنه وبشكل عام توجد علاقة ارتباط إيجابية ومعنوية بين جميع متغيرات الدراسة الحالية المتمثلة بأبعاد العدالة التنظيمية (التوزيعية، والأخلاقية، والتقييمية، والتعاملية، الإجرائية) من جانب، وأبعاد الارتباط الوظيفي (الارتباط المعرفي، والارتباط السلوكي، والارتباط العاطفي)، ومن خلال ذلك يمكن قبول صحة فرض الدراسة وما انبثق عنه من فروض فرعية.

وقد أوصت الدراسة إلى أنه يجب على الجامعة أن تسعى إلى رفع مستوى العدالة التنظيمية لدى الإداريين بجامعة إقليم سباء، وذلك بالحفاظ على مستوى الارتباط الوظيفي لديهم.

الكلمات المفتاحية: العدالة التنظيمية، الارتباط الوظيفي، أعضاء الهيئة الإدارية في جامعة إقليم سبأ.

استخدام نظم الخبرة في المحاسبة والمراجعة الخارجية

№ [9874]

نعمان، هيثم أمين محمد محمد

قسم المحاسبة، كلية العلوم الادارية، جامعة اب، اب، اليمن.

الملخص

تهدف الدراسة إلى تسليط الضوء على ألأنظمة الخبيرة وبصفة خاصة على استخداماتها الحالية في مجال المحاسبة والمراجعة والتعرف على دورها في تطوير وتحسين كفاءة وفعالية المراجعة الخارجية والمحاسبة وذلك كونها أحد أبرز تقنيات الذكاء الاصطناعي المستخدمة في مؤسسات الأعمال في عصرنا الحالي.

وتبرز أهمية الدراسة من خلال ضرورة قيام المراجعين الخارجيين والمحاسبين بمواكبة التطورات الموازية في بيئة الأعمال والتطورات التكنولوجية الحديثة. ولتحقيق أهداف الدراسة كان لا بد من اجراء مراجعة وتأطير نظري لجوانب البحث للخروج بتصور واضح عن ماهية الأنظمة الخبيرة. وقد اعتمدت الدراسة على المنهج الوصفي لسرد وعرض المفاهيم الاساسية المتعلقة بالموضوع.

وقد خلصت الدراسة إلى التأكيد على الأهمية البالغة للنظم الخبيرة في تطوير وتسحين جودة المراجعة الخارجية والمحاسبة كأحد أبرز تقنيات الذكاء الاصطناعي وتوصلت أيضاً الى دور النظم الخبير تحسين قدرة المراجع على الكشف عن مخاطر الاحتيال والتعرف على الأخطاء جوهرية، وكذلك قدرتها في التعامل مع البيانات الضخمة والمعقدة وتمكين المراجع الخارجي من انجاز عمله بسرعة ودقة أعلى.

الكلمات المفتاحية: النظم الخبيرة، الذكاء الاصطناعي، كفاءة وفعالية المراجعة الخارجية والمحاسبة.

Track(9)

Learning Technologies & Educational Management

الاحتياجات التدريبية لإدارات مدارس التعليم العام ومكاتب التربية والتعليم بمحافظة تعز أثناء الأزمات

№ [1528]

رشاد سعيد قايد حسن مجلي

قسم العلوم التربوية، كلية التربية، جامعة تعز، تعز، اليمن.

الملخص

هدف البحث إلى: تشخيص واقع مدارس التعليم العام ومكاتب التربية والتعليم بمحافظة تعز أثناء الأزمات، وتشخيص واقع إدارات مدارس التعليم العام ومكاتب التربية والتعليم بمحافظة تعز أثناء الأزمات، والتعرف إلى أبرز تجارب/ ممارسات إدارات مدارس التعليم العام ومكاتب التربية والتعليم بمحافظة تعز أثناء الأزمات، واستقصاء أهم الاحتياجات التدريبية لإدارات مدارس التعليم العام ومكاتب التربية والتعليم بمحافظة تعز أثناء الأزمات. واستخدم الباحث المناهج المختلطة (المنهج الوصفي التحليلي، والمنهج الاثنوجرافي (المقابلة الاثنوجرافية)، كما استخدم الباحث لجمع المعلومات أداتي البحث: المقابلة الاثنوجرافية والملاحظة بالمشاركة، بالإضافة إلى تحليل التقارير والبيانات الإحصائية.

وتمثلت أهم نتائج البحث في: أن عدد مدارس تعز التي تضررت تضرراً كلياً أو جزئياً؛ بسبب قصف الطيران أو الاشتباكات المسلحة أو التي احتلت من قبل النازحين، أو الجيش، يصل إلى ما نسبته (15%) تقريباً من إجمالي المدارس التي تضررت على مستوى الجمهورية اليمنية، وأن قطاع التعليم بمحافظة تعز تضرر تضرراً كبيراً بسبب الحرب الخارجية والاقتتال الداخلي وبنسبة تزيد عن (15%) من إجمالي الأضرار في الجمهورية اليمنية تقريباً.

واستنتج البحث قائمة بأهم الاحتياجات التدريبية المعرفية والمهارية والسلوكية لإدارات مدارس التعليم العام ومكاتب التربية والتعليم بمحافظة تعز أثناء الأزمات، في عدة مجالات أهمها: القيادة والإدارات أثناء الأزمات، وإدارات المدارس أثناء الأزمات، والتخطيط لإدارات الأزمات، والعلاقات الإنسانية، نظم المعلومات وقواعد البيانات، والإدارات الصفية أثناء الأزمات، والدعم النفسي، وحل المشكلات، وطرائق التدريس الملاءمة لظروف الأزمات.

الكلمات المفتاحية: الاحتياجات التدريبية، إدارات مدارس التعليم العام، مكاتب التربية والتعليم، إدارات التعليم أثناء الأزمات.

دور المدرسة في تنمية قيم المواطنة لدى طلبة المرحلة الثانوية في الجمهورية اليمنية (دراسة ميدانية لمدارس مدينة تعز)

№ [1603]

عارف محمد سيف أحمد الصامت[1،2]

[1] مكتب التربية والتعليم، تعز، اليمن.

[2] جامعة الحكمة، تعز، اليمن.

الملخص

هدفت الدراسة إلى التعرف على درجة ممارسة المدرسة لدورها في تنمية قيم المواطنة لدى طلبة المرحلة الثانوية، وكذلك معرفة ما إذا كان هناك فروق ذات دلالة إحصائية عند مستوى دلالة ($\propto = 0.05$) لتقديرات أفراد العينة لدرجة ممارسة المدرسة لدورها في تنمية قيم المواطنة تُعزى لمتغيري (الجنس – التخصص)، ولتحقيق ذلك أعتمد الباحث المنهج الوصفي التحليلي، واستخدم أداة الاستبانة، والتي تم تطبيقها على عينة بلغت (311) معلماً ومعلمة من معلمي المرحلة الثانوية، تم اختيارهم بطريقة العينة العشوائية البسيطة من (12) مدرسة ثانوية تم اختيارها أيضاً بطريقة العينة العشوائية من مدارس مديريات مدينة تعز الثلاث (المظفر – القاهرة – صالة)، وتوصلت الدراسة إلى أن درجة ممارسة المدرسة لدورها في تنمية قيم المواطنة جاءت بدرجة متوسطة، كما أظهرت النتائج عدم وجود فروق ذات دلالة إحصائية لدرجة ممارسة المدرسة لدورها في تنمية قيم المواطنة لدى طلبة المرحلة الثانوية تُعزى لمتغير الجنس، ووجود فروق ذات دلالة إحصائية تُعزى لمتغير التخصص (مواد أدبية – مواد علمية) في مجال المقررات الدراسية لصالح تخصص المواد الأدبية، وعدم وجود فروق ذات دلالة إحصائية لبقية مجالات الدراسة، وفي ضوء النتائج أوصى الباحث بمجموعة من التوصيات لتفعيل دور المدرسة ورفع مستوى ممارستها لدورها في تنمية قيم المواطنة لدى طلبتها.

الكلمات المفتاحية: دور المدرسة ، قيم المواطنة ، طلبة المرحلة الثانوية.

المهارات الحياتية المضمنة في كتاب الاحياء للصف الاول الثانوي بالجمهورية اليمنية

№ [1903]

إشراق هائل الحكيمي

قسم المناهج وطرائق تدريس العلوم، كلية التربية ، جامعة تعز ، اليمن

الملخص

هدفت الدراسة الى التعرف على مدى تضمن المهارات الحياتية بمحتوى كتاب الاحياء للصف الاول الثانوي في الجمهورية اليمنية، واتبعت الدراسة المنهج الوصفي التحليلي، ولتحقيق ذلك تم بناء قائمة بالمهارات الحياتية الواجب تضمنها في محتوى كتاب الاحياء للصف الاول الثانوي، تمثلت بخمسة مجالات أساسية للمهارات الحياتية هي:(مهارات النمو الشخصي - المهارات الاجتماعية - المهارات الصحية - المهارات الوقائية - المهارات البيئية)، تفرعت الى (13) مهارة أساسية و(71) مهارة فرعية، وعلى اساسها تم تصميم وتحكيم استمارة التحليل، وكانت نتائج التحليل بناء على عدد التكرارات والنسب المئوية لمحتوى كتاب الاحياء للصف الاول الثانوي، حيث حصلت مهارات النمو الشخصي في المرتبة الأولى، تلتها المهارات الاجتماعية في المرتبة الثانية، ثم المهارات الصحية، ثم المهارات الوقائية، وجاءت المهارات الوقائية في المرتبة الرابعة والاخيرة ، ولم يتم تسجيل أي تكرارات في المهارات البيئية في محتوى الكتاب، وبناء على هذه النتائج تم وضع عدد من المقترحات والتوصيات.

الكلمات المفتاحية: كتاب الاحياء، الصف الاول الثانوي، المهارات الحياتية.

التصورات البديلة في المفاهيم الكيميائية لدى خريجي المرحلة الثانوية بمدينة مأرب واتجاهاتهم نحو مادة الكيمياء

№ [2101]

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قسم العلوم التربوية، كلية التربية والعلوم، جامعة أقليم سبأ، مأرب، اليمن.

الملخص

هدف هذا البحث إلى التعرف على التصورات البديلة في المفاهيم الكيميائية لدى خريجي المرحلة الثانوية بمدينة مأرب واتجاهاتهم نحو مادة الكيمياء، واستخدم الباحث المنهج الوصفي المسحي, حيث طبق الباحث اختباراً للمفاهيم العلمية من نوع اختيار متعدد مكون من عشرين فقرة، ومقياس ثلاثي التدريج يتكون من أربعة محاور يقيس الاتجاه نحو مادة الكيمياء على عينة البحث، التي قوامها(57) طالباً وطالبةً، تم اختيارهم بطريقة عشوائية، واستخدم الباحث برنامج *SPSS* لمعالجة البيانات وحساب التكرارات والنسب المئوية، والمتوسطات، والانحراف المعياري، واختبار (*t.test*) لعينتين مستقلتين، وتوصل الباحث إلى:

1. وجود تصورات بديلة لدى الطلبة في المفاهيم الكيميائية كالخلط بين العامل المؤكسد والمختزل، وثبات المركب وارتفاع الطاقة، والخلط بين الألكايانات والالكانات ...وغيرها.
2. أن نسبة شيوع التصورات البديلة في المفاهيم الكيميائية مرتفعة حيث بلغت(60%) ، وأن هناك فروقاً ذات دلالة إحصائية في ارتفاع نسبة شيوع التصورات البديلة ولصالح ذوي التحصيل المنخفض، والمقيمين.
3. اتجاهات الطلبة نحو مادة الكيمياء كانت متوسطة، وهناك فروق غير دالة إحصائيا تعزى لكل من(التحصيل المرتفع، والإقامة ، والجنس).
4. هذا وقد اوصى الباحث بمجموعة من التوصيات ، أهمها معرفة أسباب التصورات البديله للمفاهيم العلميه بمادة الكيمياء لدى الأمم المتحدة ، ووضع خطة علاج لها .

الكلمات المفتاحية: التصورات البديلة، المفاهيم الكيميائية، الاتجاه نحو المادة، مدينة مأرب.

SOCIAL SUPPORT AND ITS RELATION TO INTERNET ADDICTION AMONG THE STUDENTS OF FACULTY OF EDUCATION, TAIZ UNIVERSITY

№ [2160]

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Abstract

The research aimed at identifying the relationship between social support and internet addiction among university students. The researcher used the causality comparer descriptive analytical method. The main research sample consisted of 200 students from the faculty of education of both sexes. Two tools were used, namely the Social Support Scale by Daidamoni (2009) and the Internet Addiction Scale by the researcher. The research arrived at the following findings:

- *The level of internet addiction among university students was above the average.*
- *The level of social support among university students was below the average.*
- *There were no statistically significant differences at (0.05) in the level of social support among university students due to the variable of specialization or sex.*

*There was an average negative and statistically significant correlation between the level of internet addiction and the total degree of social support and its areas such as information support, sentimental support, social friendship and appreciation support. The correlation coefficients were respectively (-467** , -410** , -449**, -436**, -462**), except for the dimension of financial support which showed a positive correlation as the coefficient was 45**.*

Keywords: Social Support, Internet Addiction, University Student, Tazi, Yemen.

التقويم التربوي وضمان جودة التعليم في بعض مدارس التعليم العام بمحافظة تعز

№ [2941]

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[3]مديرية صبر الموادم- تعز ، وزارة التربية والتعليم، اليمن.

الملخص

يهدف هذا البحث إلى الهدف الرئيس للتقويم التربوي في محافظة تعز حيث تعتبر عملية التقويم هو ضمان جودة العملية التعلمية والتربوية ونواتجها، ذلك لأن الغرض من جهود المؤسسات التربوية هو اكساب الطلاب والطالبات، العلوم والمعارف والمهارات والسلوكيات والاتجاهات، الميول التي سبق تحديدها بوضوح من خلال السياسات التعليمية، والخطط الدراسية، والمناهج والبرامج المختلفة. ولذلك فإن التقويم يركز على جودة النتائج النهائية نهاية العام الدراسي هل اكتسب الطلاب والطالبات العلوم والمعارف والمهارات الأساسية؟ وهل اكتسب الطلاب السلوكيات والاتجاهات الإيجابية التي تؤهلهم لأن يكونوا أعضاء صالحين يسهمون في بناء المجتمع بشكل فاعل بعد تخرجهم من الجامعات؟ ومن هنا فإن التقويم -سواءٌ أكان؟

- تقويماً مستمرًا تكوينياً (Formative)
- أم تقويمًا نهائيا- (**Summative**)

شرط رئيس لتحقيق الجودة في التعليم، من خلال وجود معايير أو مواصفات لمدخلات العملية التعليمية وعملياتها ونواتجها، والتقويم المستمر لها، للتأكد من أنه تسير وفق المواصفات المطلوبة، وأن العمليات تؤجَّه الوجهة الصحيحة إذا أظهر التقويم حاجتها إلى ذلك.

وهذا البحث يقدم رؤية تكاملية للتقويم التربوي، وتفرق بين مفهومين برزا حديثاً في هذا المجال هما: التقويم للتعلم (Assessment for Learning)، وتقويم التعلم (Assessment of Learning) وأغراض كل منهما، وأساليبه وأدواته، وعلاقتهما بضمان جودة التعليم العام في محافظة تعز.

الكلمات المفتاحية: التقويم التربوي ، ضمان جودة التعليم ، مدارس التعليم العام في محافظة تعز.

العدالة التنظيمية لدى مديري مدارس التعليم العام في اليمن وعلاقتها بالاستغراق الوظيفي للمعلمين فيها

№ [3549]

حسين حسين علي التركي

قسم الإدارة العامة، كلية التربية والعلوم الإنسانية والتطبيقية، الجوف، جامعة إقليم سبأ، مأرب، اليمن.

الملخص

هدفت هذه الدراسة التعرف على مستوى العدالة التنظيمية لدى مديري مدارس التعليم العام في اليمن وعلاقتها بالاستغراق الوظيفي للمعلمين فيها من وجهة نظرهم. تكون مجتمع الدراسة من جميع المعلمين والمعلمات اليمنيين في مدارس التعليم العام الحكومية بمحافظة مأرب للعام الدراسي 2021 – 2022م، البالغ عددهم (1091) معلماً ومعلمة موزعين على (49) مدرسة من واقع إحصائية مكتب التربية والتعليم منهم (448) معلماً و(643) معلمة. نظراً لكبر حجم مجتمع الدراسة، قام الباحث بأخذ عينة عشوائية طبقية من معلمي المدارس بمحافظة مأرب؛ حيث تّم اختيار (289) معلماً ومعلمة، بنسبة (27%) من مجتمع الدراسة الأصلي. أما المنهج المستخدم فهو المنهج الوصفي بشقية المسحي والارتباطي وذلك لملاءمته لطبيعة وأهداف الدراسة، وبعد معالجة البيانات إحصائياً باستخدام برنامج (spss) أشارت النتائج إلى أن مستوى العدالة التنظيمية لدى مديري المدارس في اليمن جاءت متوسطة بشكلٍ عام وفقاً للمعيار الذي أُعتمد في تحديد المستوى في هذه الدراسة، إذ بلغ المتوسط الحسابي للدرجة الكلية لمستوى العدالة التنظيمية (3.13) وانحراف معياري (0.319). كما أظهرت النتائج أن مستوى الاستغراق الوظيفي للمعلمين في تلك المدارس من وجهة نظرهم جاء-أيضاً- بدرجة متوسطة إذ بلغ المتوسط الحسابي للدرجة الكلية لمستوى الاستغراق الوظيفي (3.23) وانحراف معياري (0.538). كما أشارت النتائج إلى وجود علاقة إيجابية دالة إحصائيا بين العدالة التنظيمية لدى مديري المدارس في اليمن والاستغراق الوظيفي للمعلمين فيها، فقد جاء معامل الارتباط بين الدرجة الكلية للعدالة التنظيمية والاستغراق الوظيفي (0.510)، وهو دال إحصائياً. وأظهرت النتائج عدم وجود فروق ذات دلالة إحصائية بين مستوى العدالة التنظيمية لدى مديري مدارس التعليم العام في اليمن وعلاقتها بالاستغراق الوظيفي للمعلمين فيها من وجهة نظرهم، وبين متغيرات (الجنس، التخصص، سنوات الخبرة).

الكلمات المفتاحية: العدالة التنظيمية، الاستغراق الوظيفي، المديرون، المعلمون.

TOTAL PRODUCTIVITY GROWTH IN THE PRIVATE UNIVERSITIES IN REPUBLIC OF YEMEN USING MALMQUIST PRODUCTIVITY INDEX

№ [6424]

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Abstract

This paper aims to evaluate the total productivity growth of (18) Private Universities in Republic of Yemen. The performance of the Private Universities is specified on the Total Factor Productivity Change (TFPCh) and Technical Efficiency Change (EffCh). Output orientated DEA-Malmquist index was used to assess the productivity growth of (18) Private Universities in two academic years (2012/2013) and (2013/2014) and was used two input variables (number of enrolled students in Bachelor and number of Teaching Staff) and one output variable (number of graduated of students). The results showed that (10) private universities achieved remarkable positively growth in Malmquist Index for Total Factor Productivity and (8) Private Universities or (66.67%) attained positively growth in Technical Efficiency Change (EffCh). The Technological Change Index showed that (4) Private Universities only showed a technological progress.

Keywords: Total Productivity Growth, DEA, Malmquist Productivity Index.

مدى تضمن مهارات القرن الحادي والعشرين في كتاب الأحياء للصف الأول الثانوي بالجمهورية اليمنية

№ [7067]

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الملخص

هدفت الدراسة إلى التعرف على مدى تضمن مهارات القرن الحادي والعشرين في كتاب الأحياء للصف الأول الثانوي بالجمهورية اليمنية، ولتحقيق هدف الدراسة؛ تم استخدم المنهج الوصفي التحليلي من خلال تحليل المحتوى باستخدام بطاقة تحليل المحتوى التي أعدها الباحثان، وشملت الأداة على ثلاث مهارات رئيسة من مهارات القرن الحادي والعشرين وهي: مهارات التعلم والإبداع، ومهارات الثقافة الرقمية ومهارات الحياة والمهنة، وسبع مهارات فرعية، اشتملت على (17) مؤشراً، وتم التحقق من صدقها وثباتها، وبلغ معامل هولستي Holsti (96%)، ولتحليل البيانات تم استخدام التكرارات والنسب المئوية، وقد اظهرت نتائج الدراسة أن مستوى تضمين مهارات القرن الحادي والعشرين في كتاب الأحياء للصف الأول الثانوي كان متفاوتاً بين عال ومنخفض، إذ كان مستوى تضمين مهارات التعلم والإبداع عال، وبنسبة بلغت (82,63%) وجاءت مهارات الحياة والمهنة بمستوى تضمين منخفض، وبنسبة بلغت (81,8 %)، في حين كانت مهارات الثقافة الرقمية الأقل تضمناً وبمستوى تضمين منخفض، وبنسبة بلغت (54,8%).، وفي ضوء النتائج اوصت الدراسة ضرورة الاهتمام بمهارات الثقافة الرقمية، ومهارات المهنة والحياة في كتب الأحياء، وتدريب الطلبة المعلمين بكلية التربية على مهارات القرن الحادي والعشرين.

الكلمات المفتاحية: مهارات القرن الحادي والعشرين، كتاب الأحياء للصف الأول الثانوي.

TECHNOLOGY BASED SIMULATION LEARNING OF CLASSROOM ENHANCING STUDENTS' LEARNING & TEACHERS' PRACTICAL PERFORMANCE

№ [7414]

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Abstract

This study aims to use Technology based simulations that is interesting, easy to use by participants and streamline the time of technical teachers in bringing the technical materials as well as feasible to be used in learning anywhere and anytime. Technology of computers is the most significant tools of information age, have increasingly been used in each stage of education system. The main objective of this study is to enhance students' learning performance depending on streaming simulation techniques. The participants were two hundred of participants who have participated in this study. The implications discussed for SIMULATION and suggestions for participants' opinions and attitudes.

This paper has designed to study the adoption of the participants of the general class towards the simulation labs usage in three dimensions of their abilities, practical skills and knowledge. The interaction between these dimensions is the key purpose of this study to integrate technology in existing educational approach and introduce simulation technology as an important tool to support new ways of practical teaching and learning.

A model, which explains the effect of TSU, TAS and TPU on learning, is established and tested. Using AMOS 18 (Analysis of Moment Structures) program, it explains 70% of TSU TOOLS, 77% of TPU TECHNOLOGY and 60 % of TAS, with good model fit. The findings indicate that all hypotheses are accepted and H1 is stronger than other HYPOTHESES.

Keywords: Simulation Labs, Technology Simulation Usage (TSU), Technology Ability of Simulation (TAS), Technology Practical Usage (TPU).

توظيف تكنولوجيا المعلومات في إدارة المعرفة بالجامعات اليمنية

№ [8610]

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[2]قسم الإدارة التربوية ، كلية التربية ، جامعة تعز، تعز، اليمن.

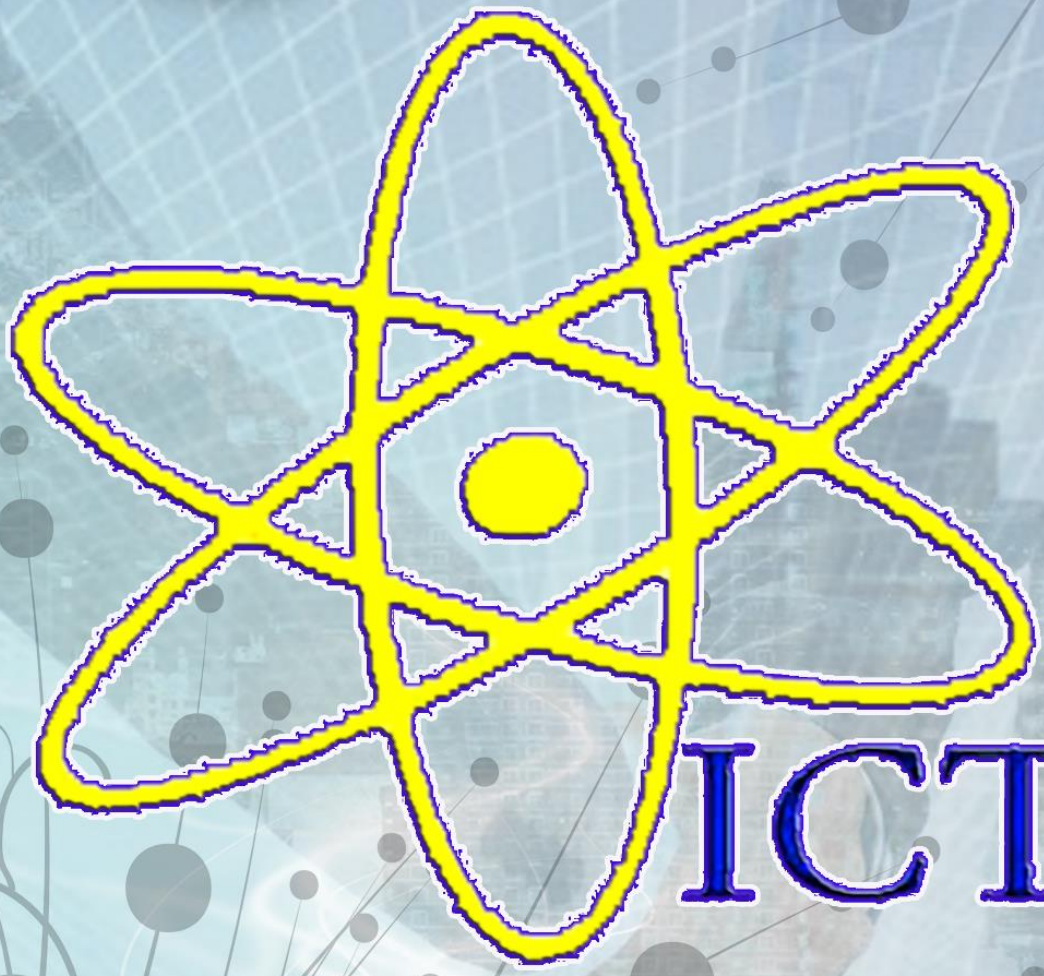
[3]مركز المرأة، جامعة تعز، تعز، اليمن.

الملخص

يهدف البحث إلى التعرف على توظيف تكنولوجيا المعلومات في إدارة المعرفة بالجامعات اليمنية من خلال التعرف على مفهوم المعلومات، تكنولوجيا المعلومات، ونظم المعلومات الإدارية .والتعرف على مفهوم إدارة المعرفة، أهداف إدارة المعرفة ونماذج إدارة المعرفة، عناصر إدارة المعرفة، ومهام إدارة المعرفة .وصولاً إلى معرفة ماهية هذا .وتم استخدام المنهج الوصفي التحليلي، وبعض الأدوات النظرية للمراجع المتعلقة بتكنولوجيا المعلومات، وإدارة المعرفة .وتوصل البحث إلى العديد من النتائج أهمها أن توظيف تكنولوجيا المعلومات في إدارة المعرفة بالجامعات اليمنية يحقق نجاحاً وفعالية وقيمة للجامعات اليمنية..

الكلمات المفتاحية: تكنولوجيا المعلومات, إدارة المعرفة, الجامعات اليمنية.

2nd ICTSA – 2022



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