Ibn Al-Haitham International Conference for Pure and Applied Sciences, University of Baghdad, Baghdad, Iraq (IHICPAS).

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IHICPAS Conference Proceeding volume contain the novel contributions that were reviewed and presented through the Ibn Al-Haitham International Conference for Pure and Applied Sciences (IHICPAS) will be held in College of Education for Pure Science (Ibn al-Haitham), University of Baghdad on 20 and 21 December, 2020., where the conference covers 6 tracks which includes (Track1 Chemistry, Track 2: Mathematics, Track3: Computer Science, Track 4: Biology Sciences, Track 5: Physics, and Track 6: Remote Sensing and GIS). IHICPAS aims to gathering together all the new trends, projects, technologies, and recent research works in many fields in pure and Applied Sciences. The received papers which passed the double-blind reviews which successfully passed the reviewers comments and editorial board decisions comes from various authors around the world, where the authors are either working in academics centers, universities, research institutes, corporations, industries, and other agencies or postgraduate students where the presented works refers to their novelty in their research works.

IHICPAS Conference got very significant interesting from authors that comes from several countries like: UK, India, French, Morocco, Turkey, Nepal, Philippines, Indonesia, Australia, Egypt, Lebanon, Algeria, Iran, Pakistan, Malaysia, and Many other Countries where the authors are successfully presented their works and attend the sessions who managed by our scientific and organizing committee Members, and answered all the questions and dotes that directed by session chairs and attendances. We successfully held this conference within 2 days (20 and 21 December 2020), where in the first day we successfully listen to the keynote speakers' presentations then the session started from 10:00 AM based on Iraq Standard Time till 10:00PM. We would like to express our thanks and appreciation to all our session chairs for their hard work and attend our (12) sessions through two days and more than 10 hours per day to deliver the presented works in successful manner.
IHICPAS conference hosted 6 plenary sessions per day, where in the first day (20th December 2020) the Inauguration program started from (9:00 AM) till (10:00 AM). Then Sessions Started directly by dividing the authors into their certain session who managed by 4 Chairs (2 From Scientific Committee board, 1 from Organizing committee board and 1 from Conference Editors chairs board). The manuscripts which have presented and published in the IOP Conference Series: Journal of Physics under the peer-reviewed process. We love to express our gratitude for all of the participants, keynote speakers, organizing committee members, Scientific Committee members, and other Guest Chairs and Patrons for their supports and achievement, and we extend our thankful to all our reviewers (230+) reviewers, for their times and valuable notes. We extend our thanks to our international committee members for gaudiness of their participators and promote this conference in their regions, and successfully present very attractive presents. Also, we thank our authors for their effective contribution in our conference and participating with us in this conference proceeding. We also, acknowledge SICC Center at University of Kufa, Dijla Co. Pvt. Ltd., for their hospitality and sponsoring the conference. Furthermore, would like to thank SICC Center for supporting us to held this conference in successful manner.

Venue of the Conference

The conference has been organized Physically and virtually in College of Education for Pure Science (Ibn al-Haitham), University of Baghdad, in 20-21 December 2020. IHICPAS organizers aims through their scientific departments, and preparing a generation of students armed with knowledge and looking forward to building their country according to the new scientific developments. The university endeavors towards making use of them in an appropriate cultural means as well as building good and new scientific establishments for the sake of developing the present through scientific research.

The Reason(s) why IHICPAS Conference Held virtually:

Due Covid-19 Pandemic Situation in many countries around the world and the incredible increases cases through this Pandemic is very dangerous, and per day the number of cases in our peoples that infected by Covid-19 in the world and in Iraq, and due to the World Health Organization and Ministry of Health Recommendations, the conference organizers decided to conduct and held this conference Virtually to keep the life of participants and also due the challenges of lock down. Conduct IHICPAS virtually bring huge number of participants that non expected due many peoples are unable to attend conference physically, they able to attend our online Conference due to the friendly uses of Virtual Software without spending money for flight tickets or other matters to attend that type of conferences. However, we feel those peoples by attend our conference achieved our goal by inviting very attractive authors and participants who are interest to attending this conference, they will not able to attend it if it's held in non-virtually. However, The organizing committee have achieved these tasks and all sessions organized and managed successfully through Zoom Conference Meeting, where the team attend physically to use the University of Baghdad, College of Education for Pure Science (Ibn al-Haitham), infrastructure to achieve this conference Successfully.

Technology, Technical Difficulties and Drawbacks of Conference Virtually.

IHICPAS Conference Consider the ZOOM Meeting Software as the main software to conduct this conference, as the Main Software for delivering the Session discussions and Meeting information to all participants in Iraq and Other countries. The main advantages of this Technology is to reduce the time and space when someone would like to attend any scientific event and also broken the limitations for the peoples and authors who would like to attend this event from far away countries, in which the provide a facility to provide a platform that able to manage and control large number of participants is the main challenge of choosing the best software, we find Zoom meeting is the best software that fulfill our
requirements and provide amazing virtual platform to manage our authors and participants through our conference sessions.

The main technical difficulty in virtual software is the internet connection, due to covid-19 band, many peoples sitting at home and many jobs transformed from physical to virtual mode. However, internet connection and ISP infrastructure may affected due the large number of traffic devices that join to the network recently and may the ISP companies do not have good infrastructure to provide stable connection through the meeting or sessions. Hence, we conducted our sessions in the early morning time where the Babylon university, SICC, and Dijla Jewel Pvt. Ltd. Infrastructure used to achieve this task successfully. With Blessing of God, we held this conference successfully without any issue and we are looking to conduct this conference in future in physical manner after the world remedy from Covid-19 pandemic.

The Main Technical Difficulties of Virtual Meetings can be summarizing as follow:

Virtual Techniques and software that used to achieve these types of events and conferences in virtual mode, many software can be used, which can be offered by many companies either in free or paid own services. The main challenge to use online technique is to find the good software that able to manage large number of attendees with varied number of traffic data, we feel that the internet connections is the main source for any challenge in any online event. However, if the internet connection became slow, where many users are forced to exit and rejoin many times through the session. So many software's can used to achieve high quality meeting, need some certain limitations, like number of users, to keep the bandwidth little good, however not all interested peoples can attend meeting, difficulty of join and attend the meeting rooms, view and share the content, etc.

Drawbacks of virtual conference, we do not feel the virtual conference have much drawbacks than physical conferences, in which many peoples can avoid many fees payment for travels and hosting, registration fees, as well as flight tickets in which virtual conferences gives free offer for all the above issues. Another thing is, some famous figures and professors can easily join and attend without consider their fees in which they can attend and speak for hours when they sitting at home.

The main drawback we feel that if some authors would like to visit the conference venue for direct discussion and made good collaboration, so virtual meeting can also achieve this task easily, at the current time where all world suffer from Covid-19 pandemic.

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**Invited Speakers**

- **Prof. Richard Winpenny**, Professor of Inorganic Chemistry, Materials Chemistry / Department of Chemistry Photon Science Institute / FSE Research Institutes Molecular Magnets Group.
- **Prof. Dr. Jure Ravnik**, Faculty of Mechanical, Slovenia Engineering, University of Maribor, Maribor, Slovenia.
- **Prof. Divya Maitreyi Chari**, Professor of Neural Tissue Engineering, University of Keele School of Medicine.
- **Prof. Dr. Sherein Salah el din Mohamed Ghaleb**, professor of forensic medicine and clinical toxicology, Cairo university, Egypt.
- **Ass.Prof. Ahmed saeed Alabed**, Ahmed Bin Mohammed Military college.

**Organizing Institutions**

- Ministry of Higher Education and Scientific Research
- University of Baghdad
- College of Education for Pure Science (Ibn al-Haitham).

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- **DIJLAL GOLDON JEWEL Company, Iraq, for their Supports and Sponsorship.**
- **SICC Center for Technical Supports.**
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With our pleasure to attend our next conferences in Future
Dr. Ahmed J. Obaid, Conference Publication Chair