

**ECHAHID HAMMA LAKHDAR UNIVERSITY - EL-OUED**  
**Under the Supervision of the DGRSDT and in collaboration with the CRTI**  
**Organize**

**International Pluridisciplinary PhD Meeting (IPPM'20)**

**1<sup>st</sup> Edition, February 23-26, 2020**

**Theme: Modern Technology and Fineness Life**

**Honorary Chairman**

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**Exhibition chair**

**Dr. Selmane Mehdi**, EHL University of Eloued, Algeria

## **Overview & Objective:**

Dear Researchers

We are pleased to announce the International Pluridisciplinary PhD Meeting (IPPM'20), organized by EHL University –El-Oued (Algeria) under the supervision of the DGRSDT direction and in collaboration with the CRTI centre. This year, it will be held at the EHL University from 23 to 26 February.

Over the years, The use of technology is increasing day by day, we all depend on technology, and we use various technologies to accomplish specific tasks in our lives. Today we have various emerging technologies that impact our lives in different ways. Technology is being implemented in almost every aspect of our lives and business function. So embracing it and learning how to use technology in useful way is very important and recommended. As the world keeps on developing, technology will change, what is working today might not work tomorrow. So it is better to stay up-to-date with new emerging technologies and learn how to embrace and use them in your daily life. Currently, technology has revolutionized our world and daily lives. Technology has created amazing tools and resources, putting useful information at our fingertips. As consequently, it is hard to imagine our daily life without technology.

International Pluridisciplinary PhD Meeting (IPPM'20) provides an opportunity for PhD students, researchers, academics and industry professionals around the world, to present, share their work and participate in special workshop about Modern Technology and its application for Fineness Life.

We hope that PhD students will join us in large numbers to ensure a productive exchange of ideas and a lively interaction among the participants.

We look forward to seeing you in El Oued!

## **Call for participation:**

PhD students are invited to participate in the different workshop that will be organized in the Meeting and presenting their work within the delineated framework. In addition to the main topics, participation on other important subjects of the central Meeting themes will be considered for the inclusion in the Scientific Program.

## **My RW Journey in 200s Competition:**

"My Research work (RW) in 200 Seconds" is a competition for PhD students to present their research work topic in simple terms to a jury made up of Lecturer/researchers, as well as a diverse non-specialist audience. Each PhD student must present his or her research work in 200 s in a clear and concise, yet convincing manner. After the competition completed, Awards will be delivered to excellent PhD students presented their research in the IPPM'20. Only the Best-selected work in each topic will be invited to participate to this competition.

## **Main Workshops:**

The main Topics of interest include, but are not limited to

## **Workshop 1: Smart cities, IOT and Machine Learning**

Smart cities have become smarter than before thanks to the recent developments of digital technologies. A smart city is equipped with different electronic elements employed by several applications, like street cameras for observation systems, sensors for transportation systems, etc. In addition, this can spread the usage of individual mobile devices and IOT (internet of things) techniques which enables to use affordable wireless technology and transmit the data into the cloud at a component level, considering heterogeneous environment. It also provides a place to save, manage and secure data. On the other hand, Machine Learning (ML) is one of the most recent advanced techniques. It enables IT systems, such as smart cities systems, to recognize patterns on the basis of existing algorithms and data sets and to develop adequate solution concepts. Recently, ML reaches great success in many fields, especially in the health sector, image processing, speech recognition, self-driving, etc. The Computer Science session in the international International Pluridisciplinary PhD Meeting (IPPM'20) will be mainly related to the aforementioned topics. It aims to create a common community from academia (in particular PHD students) and industry to share best practices, tools and methodologies.

#### **Workshop 2: Synthesis, characterization, applications, and challenges of new materials**

This workshop is addressed to a multidisciplinary scientific community with enhanced exchanges between high level senior researchers and young researchers. It is an opportunity to give young researchers (PhD students) a global overview of elaboration, characterization, and applications of materials found in many domains at the frontier of several disciplines (physics, chemistry, chemical engineering...).

#### **Workshop 3: Fixed point theory and its applications**

In various mathematics problems, the existence of a solution is equivalent to the existence of fixed point for an operator. So the existence of a fixed point has an importance primordial in different fields. The fixed point theorems give conditions where certain associated equation has a solution. The fixed point theory based on analysis, topology and geometry. In last years, fixed point theory becomes an important tool in the study of the non linear problems. In particular, the fixed point technic has been used too in various fields as in chemistry, economy, engineering, game theory and in physics

#### **Workshop 4: Investing Modern Technology in Renewing Knowledge Discourse in Languages and Literature**

The new technological tools have made the way to the post-globalization knowledge society accessible, and have also enabled the poor as well as the rich, the lay learners and the elite in any country around the globe, including those who live in crises and wars, to easily enjoy the right to knowledge, education and training through access to the portals of universities, institutes, research centers, and universal libraries. This very technology has offered as well the necessary tools of knowledge: (books, audiovisual documents, correspondence, live conversations, video conferences, etc.) Through communicative interactions between its various parties, the discourse of knowledge derives its presence within the new technologyspace through these technological media: (digital screens, computers, mobile phones, etc.). In such a discourse, ideas can be freely put forward and shared, and hence, either to be consented to or rejected. This very global discourse contributes to the unification of people by accelerating contact and communication between individuals in the world. This allows one to move forward from their limited social circles into wider ones globally and humanly through virtual spaces. It is noteworthy that our discourse of knowledge in the field of language, literature and other fields of the humanities is—on the whole—still trapped in an archaic language debating some old-fashioned issues though

sometimes seem renewed while it is hardly present in such multimedia: (e-books, seminars and the social media, etc.). This leads us to look into the secrets of this static, unchanging discourse and as well think about the means through which we can update it so that it remains in touch with the scientific and cultural outputs of the global civilization. Verily, linguistic and cultural openness is deemed be one of the most effective mechanisms, for language opens broad horizons to transfer knowledge and enables us to know about other cultures and achievements; these are considered as one of the main indicators by which the quality of life is measured. The fundamental problematic of this scientific activity is formulated as follows: To what extent can new technology be invested in renewing the discourse of knowledge in language and literature, thus achieving the quality of life in all fields?

#### **Workshop 5: 5G of mobiles Networks: Challenges and requirements**

Our aim is to provide a survey about 5G technology; that is the fifth generation network of cellular mobile communications, intended to replace 4G. Normalization and standardization will be done in 2020. The first set was in March 2019 by some countries like China, USA. 5G technology will achieve peak data rates up to several times faster than LTE Advanced's peak speeds of 1 Gbps. We expect 5G to provide between 100 and 1,000 times more capacity than 4G. 5G must have a latency of a single millisecond, 50 times faster than 4G, or even less. The network will set on either centimeter wave bands at spectrum frequencies below 6GHz or centimeter and millimeter wave bands above it 30 to 300GHz. Mobile Internet and the Internet of Things (IoT) are two key market drivers for 5G communications. We resume the aim of this technology is to provide high throughput (gigabits), high area capacity density, data transmission with any delay, to provide smart cities, Device-to-Device communications.....

#### **Workshop 6: Digital Economy and Quality of Life**

In light of the current developments that are based on aspects of sustainable development, the term quality of life came to take us to a new vision that looks for the integration and interrelation provided by those aspects, which in turn leads to human happiness, satisfaction and safety in one's own life, where the achievement of quality of life is a high level evidence. In order to measure the extent to which this is achieved, we need diverse performance indicators. One of the major challenges facing all societies in achieving quality of life is to benefit from the rapid development of digital technologies and new technologies. Social inclusion, efficiency and innovation which provide access to digital technologies that were previously unaffordable. There is no doubt that we live in a new world in which machines can learn superhuman skills and ingenuity in the performance of tasks. Digital wealth is bound to disrupt the workforce and the quality of life will be threatened unless societies devise new creative ways to ensure its sustainability. Stiglitz, Sen & Fitoussi Report, 2009, on measuring economic performance and social progress, recommended the development of future studies that go beyond traditional economic and social indicators, in particular by: crystallizing new measurements of quality of life; Progress; and improved traditional measurements in circulation. This forum highlights one of the most important areas of researches and current issues in the world, namely the "effects of modern technologies on the quality of life", and highlighting new economic models aimed at achieving quality of life in the rapid development of digital technologies.

#### **Workshop 7: Biotechnology and Sustainable Development**

The objective of this seminar is to create a meeting space between doctoral students, researchers and industrialists, to contribute to a better valorization of bioresources and to

discuss the constraints related to its use and their impact on sustainable development. Similarly, it is also intended to discuss the value of integrating biomarker techniques into the diagnosis of diseases, as well as their development through the use of technological techniques. A second objective is to promote dialogue and exchange among researchers to find durable solutions to current development and environmental problems by contributing to the establishment of a national strategy for sustainable development and environmental preservation.

#### **Workshop 8: Higher education using modern technology**

In the era of the information revolution, the higher education sector faces many challenges posed by the tremendous developments in the field of information and communication technologies. Rapid developments and benefit from technical developments in improving the quality of their outputs. The University as an educational institution occupies a distinguished position in society because of the responsibility entrusted to it in the formation of generations to be the mainstay of scientific, cultural, legislative and economic life, it should consider how to benefit from information and communication technology. Ensures rational utilization of investment in various resources and improved quality of life.

#### **Workshop 9: Renewable Energy: Optimization and Simulation tools**

Renewable energy encompasses an incredibly diverse array of innovative technologies used in power generation. From traditional and new resources - such as biomass, water, wind, solar, fuel cells, tidal and wave, and hydropower - renewable energy is playing an ever-increasing role in the global share of electricity generation, as both energy producers and consumers seek to increase deployment of renewable energy. Many universities have also started offering classes on renewable and alternative energy course to both undergraduate and graduate students. Simulation and analysis tools on these alternative energy resources may be useful in conducting these classes. This workshop compares some of these simulation tools and evaluates their effectiveness based on their use.

#### **Workshop 10: Modern technology in the service of law and political science**

No two in our time that scientific and technological development, digitization and artificial intelligence have become one of the most important factors aimed at enhancing the quality of life by providing facilities for daily life and solutions to the problems of the times, where the impact of this development is evident on all walks of life. While their impact varies from field to field, their impact on both the political and legal sciences is reflected in their enhancement of the quality of political life and their consolidation of legal principles and practices and the making of legal norms. Modern technologies of our time have become one of the most powerful factors influencing political progress and prosperity, providing them with a guarantee for local development, and the possibility of using modern technologies for the purpose of developing human resources and improving public service and the performance of public utilities. Their influence has also extended to relations between governments and peoples with the emergence of so-called digital diplomacy and its impact on expanding access. Diplomatic efforts, helping to understand the wishes of the public, assessing and evaluating the policies in place and exchanging ideas. Science and technology have also become a force or energy, if not a source of industry or the generation of the law. Technological development has resulted in the emergence of new means of contracting and payment, which necessitated the strengthening of the legal system of electronic transactions to suit their specificity. Evidence-based techniques have also helped to strengthen the course of justice both in the conduct of investigations, during the course of the judicial process or in the enforcement of sentences. Not to mention the role of these

developments in the promotion of legal security and the protection and promotion of human rights. Although the extension of the law to the scientific fields aims above all to regulate their use and enhance the quality of life, this can only be achieved by confronting the negative uses of modern technology, as it aims to achieve the required balance by avoiding the negative effects of its technological development and ensuring the realization of its achievement. Quality of life for individuals.

### **Workshop 11: Investing modern technology in the quality of human life from an Islamic perspective**

He who is in depth searching for true knowledge of the secrets and phenomena of Islam. He will gain a firm certainty that is a divine religion, well-constructed, which came for ruling all aspects of human life in the highest form, so it was one of his noble goals that human being should live in well-being situations without corruption in the land to be realized for the people of work. The righteous, the good life, for Allah Almighty said: "Whoever works righteous from a male or a female while he is a believer, we will give him a good life". Which means in worldly life and in the hereafter, moreover, he called people to invest in reforming the conditions of their lives using life sciences, which was the doctrine of the whole prophets.

Accordingly, one of the general purposes of Islamic law was what is known as "improving purposes", which are concerned with the quality of human life in the best situations and conditions which provide us with well-being, perfection, beauty and in the noble hadith: "verily, Allah is beautiful, loves beauty" and: "God had written Ihsan on every thing".

Hence, Islam did not mind that a person used to innovate what improves his living conditions in terms of sciences and arts. Rather, he invited him to do so. Therefore, the use of modern technology for improving the quality of human life is the spirit of the general purposes of Islamic law.

This topic should be surrounded by the study from the following principles:

The first principle: Investing technology in the quality of human life from the perspective of the Holy Quran and the purposes of Sharia.

The second principle: technology and its impact on the quality of life in the noble Sunnah.

The third principle: modern technology and its impact on relations in the Islamic community.

### **Workshop 12: Electrical Engineering Applications: Multi-phase Machines and Recent Converter Topologies**

Nowadays, power electronics and electrical machines play a crucial role in almost recent and innovative industrial technologies and applications such as Electrical Vehicles (EV), Sensorless Control and Fault Tolerance for Multi-Phase Machines (SCMPM and FTMPM), Energy Conversion Management (ECM), Grid Tied Renewable Energy Sources (GTRES), multilevel and multi-phase converters, Topologies of Zero Impedance Source Inverters (T-ZSI) and new and innovative converter topologies. Indeed, these topics have attracted more attention in the last recent years from researchers and industries to full-fill the requirements of new technologies. These innovative topologies and their control strategies are expected to ensure an improved capability in terms of performances and power quality and to overcome the drawbacks found in the basis topology of classical electric machines and power electronics converters.

The Electrical Engineering Applications session in the International Pluridisciplinary PhD Meeting (IPPM'20) will cover two main topics: Multi-phase electrical machines and recent converter topologies. The main goal of this session is to bring together academic community (in particular PhD students) and industry partners. The main objectives are respectively to share new and innovative ideas within theoretical and experimental aspects, and to be in touch with industries and to have a clear idea about their practical needs and requirements.

### **Important Date**

Work submission Before	<b>January 20<sup>th</sup>, 2020</b>
Notification of acceptance On	<b>February 5<sup>th</sup>, 2020</b>
Authors' Registration before	<b>February 10<sup>th</sup>, 2020</b>
Symposium Dates	<b>February 23-26, 2020</b>

### **Registration**

- The registration fees include Symposium bag, symposium sessions, lunches, coffee breaks, and a sightseeing tour.

Student registration	5000 DA
Regular registration	10000 DA
Industrial registration	15000 DA

### **Awards**

Awards will be provided to some outstanding papers and some Student Excellent Presentations selected and conferred by the IPPM'20 Program Committee. In order to be eligible for the award, the paper must be presented at the symposium.

### **Meeting contact**

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### **Meeting website**

<https://www.univ-eloued.dz/ippm20/>