

International Conferences on Technical Applications of Artificial Intelligence

Agile Methods Association in Corporation with:

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|---|---|
| 1 • AlHussain Bin Talal University-Jordan | 2 • Biomedical Engineering Research Center- University of Anbar |
| 3 • Peoples' Friendship University of Russia-Russia | |
| 5 • National University College of Technology- Jordan | 4 • Khawarizmi University Technical College-Jordan |
| 7 • The Arab Academics and Scientists Union | 6 • International Union of Universities |



Dr. Hasan A. Al Dabbas
Philadelphia University, Jordan
Conference Chair



Prof. Dr. Mushtak Talib Salih Al-Neda
President of University of Anbar, Iraq
Chair Session



Dr. Sayel M. Fayyad
Al Balqa Applied University, Jordan
Conference Co-Chair

Session for Biomedical Engineering Research Center / University of Anbar Intelligent system Applications with Biomedical Engineering and Artificial limb Manufacturing

Keynote Speaker



Prof. Dr. Yousif Al Mashhadany (C.V)
Director of BERC, University of Anbar, Iraq
Editor in Chief for AJES

Nanomaterial Applications with the Development
of Biosensors and Artificial Limbs



Prof. Dr. Emad Kamil Hussein (C.V)
Al Furat Al Awsat Technical University,
Iraq

Viscoelastic Mechanical Equivalent Models

Joint Scientific Workshop

- Scientific Research and Publication Ethics
- Artificial Intelligence (AI) and Scientific Research enhancement



Prof. Dr. Aziz I. Abdulla (C.V)
Editor in Chief for TJES
Iraq



Prof. Dr. Takiaddin A. Al-Smadi (C.V)
Editor in Chief for IJEER
Jordan



Prof. Dr. Khalaf S. Gaeid (C.V)
Electrical Engineering Department
Tikrit University, Iraq

Synopsis:

Developing the latest generation of artificial intelligence is crucial to increasing productivity, driving innovation, and enhancing the best of everyday life. Researchers, scientists, and engineers intend to achieve this even by improving the latest theories and applications, and it is crucial to disseminate these research papers worldwide to facilitate collaboration and spark innovation. This special issue will bring together the latest and most interesting contributions in the field of artificial intelligence applications in multiple fields in biomedical engineering and in the smart prosthetics industry, and we will be keen to present the best scientific research in these disciplines that are characterized by the applied and modern side of artificial intelligence theories.

Topics:

Therefore, this special session invites authors to submit high-quality research papers on Intelligent system Applications with Biomedical Engineering and Artificial limb Manufacturing topics which include (but are not limited to) the following:

Artificial Limbs:

- I. Development of intelligent Artificial limbs.
- II. Integration of AI in prosthetic design
- III. Improvement functionality and control in Artificial Limbs..

Biomechanics and Bioengineering:

- I. Application of biomechanics in Artificial limbs.
- II. Biomedical Engineering Principles in the Development of Prosthetics.
- III. Biomaterial in Artificial limbs.
- IV. Lightweight Material in Prosthetics.

Artificial Intelligence in Biomedical Engineering:

- I. AI-powered myoelectric prosthetic.
- II. AI decoders for peripheral nerve interfaces.
- III. Brain-machine interfaces.
- IV. Medical Imaging and Classification.
- V. Health Informatics, and Computational Genomics.
- VI. Deep Learning and Big Data Analytics.

Sensor Technologies:

- I. Biosensors in Artificial limbs.
- II. Sensors for smart prosthetics monitoring.
- III. Development of bio-compatible sensor
- IV. Biosensors for infection detection and prevention.

Osseointegration Techniques:

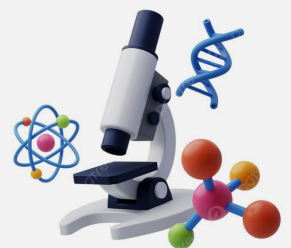
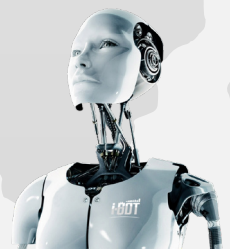
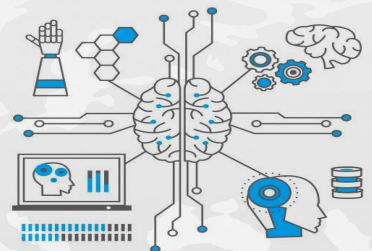
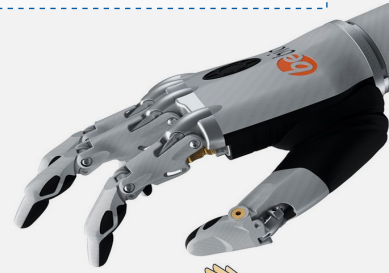
- I. Osseointegrated prosthetics
- II. Stability Prosthetics and natural movement.
- III. Techniques for Reducing Infection Risks in Artificial Limbs

Robotics in Biomedical Engineering:

- I. Robotic systems in intelligent prosthetics.
- II. Actuators for Natural movement adaptation.
- III. Advances in robotic prosthetic limbs.
- IV. Enhanced mobility.
- V. Robots and Intelligent Systems in Healthcare.
- VI. Robotics and Automation Application.

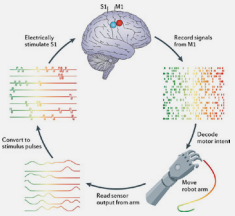
Material Science in Biomedical Engineering:

- I. Materials for comfortable and efficient prosthetic limbs.
- II. lightweight and durable materials.
- III. Composed Material in Biosensors
- IV. Applied Biosciences and Bioengineering
- V. Nanotechnology and Applied Nanosensors.
- VI. Biophysics and medical physics.



Neural Interfaces:

- I. Neural interfaces for Artificial limbs Controller.
- II. Cortical neural interfaces in Artificial limbs.
- III. Neural interfaces in Biosensors.



Rehabilitation Engineering:

- I. Rehabilitation engineering in the development of prosthetic devices.
- II. Techniques for Improving the Rehabilitation.
- III. High performance in the Rehabilitation Process.
- IV. Intelligent tools in the Rehabilitation Process.
- V. Mechatronics and Mechanical tools in Rehabilitation.



Scientific Committee of Conference

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| 1 | Prof. Dr. Yousif Al Mashhadany Biomedical Engineering Research Center, University of Anbar, Iraq Chair | 12 | Assist. Prof. Dr. Sayel M.Fayyad Al Balqa Applied University, Jordan Member |
| 2 | Prof Ir .Dr. Norhana Arsad Universiti Kebangsaan Malaysia, Malaysia Member | 13 | Assist. Prof. Dr. Encarna Micó-Amigo Heriot-Watt University, United Kingdom Member |
| 3 | Prof. Dr. Kasim Mousa Al-Aubidy Tishk International University, Iraq Member | 14 | Assist. Prof. Dr. Auns Qusai Al-Neami Al - Nahrain University, Iraq Member |
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| 5 | Prof. Dr. Takialddin Adnan Al-Smadi Jerash University, Jordan Member | 16 | Assist. Prof. Dr. Haitham Kamil Dawood College of Engineering, University of Anbar, Iraq Member |
| 6 | Prof. Dr. Ayad M. Takhakh Al - Nahrain University, Iraq Member | 17 | Assist. Prof. Dr. Settar S. Keream College of Engineering, University of Anbar, Iraq Member |
| 7 | Prof. Dr. Aziz I. Abdulla Tikrit University, Iraq Member | 18 | Dr. Mahmoud S. Awad Amman Arab University, Jordan Member |
| 8 | Prof. Dr. Emad Kamil Hussein Al Furat Al Awsat Technical University, Iraq Member | 19 | Dr. Ali Amer Ahmed Alrawi Biomedical Engineering Research Center, University of Anbar, Iraq Member |
| 9 | Prof. Dr. Khalaf S. Gaeid Al-Shammari Tikrit University, Iraq Member | 20 | Dr. Dr. Kadhum A Abed Biomedical Engineering Research Center University of Anbar, Iraq Member |
| 10 | Prof. Dr. Abdelwadoud Mesleh Balqa Applied University, Jordan Member | 21 | Dr. Hamid R. Alsanad Biomedical Engineering Research Center, University of Anbar, Iraq Member |
| 11 | Assist. Prof. Dr. Hasan. A. AL Dabbas Philadelphia University, Jordan Member | | |



<https://berc.uoanbar.edu.iq>



Important Information:

All accepted papers will be Published in a Special issue Which is Indexed in Scopus data base Journals (Upon Researcher Request).

- For more details, please visit the conference website: <https://amavte.com/ictaai>



Registration Fees:

- The template of ICTAAI conference with MS Word format you can download this template by (Notes: The maximum number of publishing pages is Eight using the ICTAAI template):
- To apply submission of your article, ([Click Here](#))



| No. | Participation Type | Fees |
|-----|---|---------|
| 1 | Standard Participation without hotel accommodation | 450 \$ |
| 2 | Standard Participation with accommodation for 2 nights at Petra Elite Hotel | 550 \$ |
| 3 | Standard Participation without accommodation with publication in Conference proceeding | 450 \$ |
| 4 | Standard Participation with accommodation for 2 nights +Publication Q3+Q4 Scopus journal (Full Package without Flights) | 1150 \$ |
| 5 | Students (Ph.D. + Master) | 200 \$ |
| 6 | Standard Participation from Jordan without accommodation | 280 \$ |
| 7 | Attendance only | 200 \$ |
| 8 | Online Conference Participation | 200 \$ |
| 9 | Posters | 70 \$ |

Fees Include:

- Conference documents + Conference Bag.
- Two Coffee Breaks / for 2 days.
- Two Lunches / for 2 days.
- Transportation from Amman to Petra.
- Social Program.

Important Dates:

- Abstract Submission: **April 5, 2025**
- Full Paper Submission Deadline: **May 10, 2025**
- Notification of Acceptance: **May 15, 2025**
- Camera-Ready Submission: **May 20, 2025**
- Early Bird Registration: **March 30, 2025**
- Conference Date: **May (22-24), 2025**
- Venue: **Petra Elite Hotel**

Journals for Publication:

- Sustainable Development of Mountain Territories- Scopus(Q2)**
 - Publication Fees: **400\$**
 - For more details, please visit the journal's scopus website: <https://www.scopus.com/sourceid/21100827893>
- Tikrit Journal of Engineering Sciences-Scopus(Q3)**
 - Publication Fees: **200\$**
 - For more details, please visit the journal's scopus website: <https://www.scopus.com/sourceid/21101118628>
- International Journal of Electrical and Electronics Research (IJEER)-Scopus(Q4)**
 - Publication Fees: **290\$**
 - For more details, please visit the journal's scopus website: <https://www.scopus.com/sourceid/21101067520>
- Anbar Journal of Engineering Sciences (AJES)**
 - Publication Fees: **Free**
 - For more details, please visit the journal's website: <https://ajes.uoanbar.edu.iq>

