

## International Conferences on Technical Applications of Artificial Intelligence

Agile Methods Association in Corporation with:

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



**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. Takiyeddin 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:**

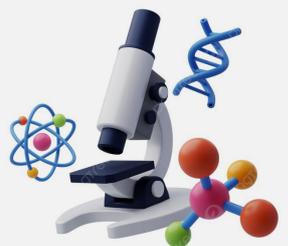
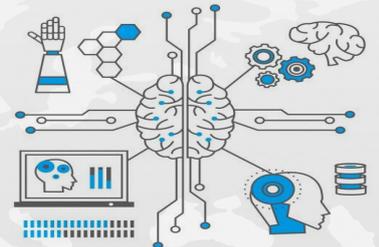
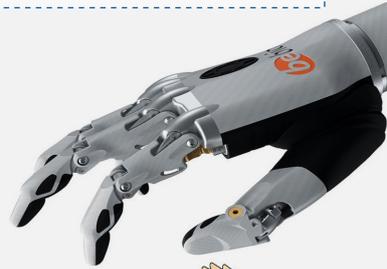
- I. Osseointegrated prosthetics
- II. Stability Prosthetics and natural movement.
- III. Techniques for Reducing Infection Risks in Artificial Limbs

**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:**

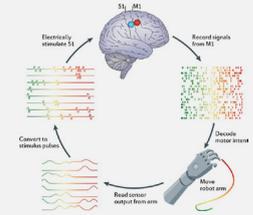
- I. Materials for comfortable and efficient prosthetic limbs.
- II. lightweight and durable materials.
- III. Composed Material in Biosensors
- IV. Applied Biosciences and Bioengineering
- V. Nanotechnology and Applied Nanosensors.
- VI. Biophysics and medical physics.





## 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

- |           |   |           |   |
|-----------|---|-----------|---|
| <b>1</b>  | <b>Prof. Dr. Yousif Al Mashhadany</b><br>Biomedical Engineering Research Center,<br>University of Anbar, Iraq<br><b>Chair</b> | <b>12</b> | <b>Assist. Prof. Dr. Sayel M.Fayyad</b><br>Al Balqa Applied University,<br>Jordan<br><b>Member</b>                            |
| <b>2</b>  | <b>Prof Ir .Dr. Norhana Arsad</b><br>Universiti Kebangsaan Malaysia,<br>Malaysia<br><b>Member</b>                             | <b>13</b> | <b>Assist. Prof. Dr. Encarna Micó-Amigo</b><br>Heriot-Watt University,<br>United Kingdom<br><b>Member</b>                     |
| <b>3</b>  | <b>Prof. Dr. Kasim Mousa Al-Aubidy</b><br>Tishk International University,<br>Iraq<br><b>Member</b>                            | <b>14</b> | <b>Assist. Prof. Dr. Auns Qusai Al-Neami</b><br>Al - Nahrain University,<br>Iraq<br><b>Member</b>                             |
| <b>4</b>  | <b>Prof. Dr. Muhsin Jaber Jweeg</b><br>Al-Farahidi University,<br>Iraq<br><b>Member</b>                                       | <b>15</b> | <b>Assist. Prof. Dr. Thaker Nayl</b><br>Biomedical Engineering Research Center,<br>University of Anbar, Iraq<br><b>Member</b> |
| <b>5</b>  | <b>Prof. Dr. Takiadddin Adnan Al-Smadi</b><br>Jerash University,<br>Jordan<br><b>Member</b>                                   | <b>16</b> | <b>Assist. Prof. Dr. Haitham Kamil Dawood</b><br>College of Engineering,<br>University of Anbar, Iraq<br><b>Member</b>        |
| <b>6</b>  | <b>Prof. Dr. Ayad M. Takhakh</b><br>Al - Nahrain University,<br>Iraq<br><b>Member</b>   | <b>17</b> | <b>Assist. Prof. Dr. Settar S. Keream</b><br>College of Engineering,<br>University of Anbar, Iraq<br><b>Member</b>            |
| <b>7</b>  | <b>Prof. Dr. Aziz I. Abdulla</b><br>Tikrit University,<br>Iraq<br><b>Member</b>   | <b>18</b> | <b>Dr. Mahmoud S. Awad</b><br>Amman Arab University,<br>Jordan<br><b>Member</b>   |
| <b>8</b>  | <b>Prof. Dr. Emad Kamil Hussein</b><br>Al Furat Al Awsat Technical University,<br>Iraq<br><b>Member</b>                       | <b>19</b> | <b>Dr. Ali Amer Ahmed Alrawi</b><br>Biomedical Engineering Research Center,<br>University of Anbar, Iraq<br><b>Member</b>     |
| <b>9</b>  | <b>Prof. Dr. Khalaf S. Gaeid Al-Shammari</b><br>Tikrit University,<br>Iraq<br><b>Member</b>                                   | <b>20</b> | <b>Dr. Dr. Kadhum A Abed</b><br>Biomedical Engineering Research Center<br>University of Anbar, Iraq<br><b>Member</b>          |
| <b>10</b> | <b>Prof. Dr. Abdelwadoud Mesleh</b><br>Balqa Applied University,<br>Jordan<br><b>Member</b>                                   | <b>21</b> | <b>Dr. Hamid R. Alsanad</b><br>Biomedical Engineering Research Center,<br>University of Anbar, Iraq<br><b>Member</b>          |
| <b>11</b> | <b>Assist. Prof. Dr. Hasan. A. AL Dabbas</b><br>Philadelphia University,<br>Jordan<br><b>Member</b>                           |           |   |



<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>

