

### Symposium honorary chair:

Pr. Debabeche Mahmoud  
Pr. Abdellah Attaf

### Program committee chairs:

Pr. Abdelhamid Djeflal  
Pr. Laid Kahloul

### Publication chair:

Dr. Soheyb Ayad  
Dr. Meftah Zouai

### Tracks Chairs:

#### Artificial Intelligence

Pr. Rachida Saouli  
Pr. Khaled Rezeg

#### Image and artificial life

Pr. Mohamed Chaouki Babahenini  
Pr. Foudil Cherif

#### Computer Networks

Pr. Salim Bitam  
Pr. Sadek Labib Terrisa

#### Software Engineering

Pr. Hammadi Bennoui

#### Data mining and optimization

Pr. Leila Djerou  
Pr. Slatnia Sihem

#### Parallel Computing and Systems

Dr. Mohamed Faouzi Zerarka

### Organizing committee chair:

Mr. Toufik Bendahmane

### Organizing committee

- Dr. Abdelhak Merizig
- Dr. Abdelmoumen Zerari
- Dr. Ahmed Aloui
- Dr. Bilal Mokhtari
- Dr. Djouhar Akrouf
- Dr. Faycal Guerrouf
- Dr. Houcine Belouaar
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- Dr. Naidji Ilyes
- Dr. Samir Tigane
- Dr. Tarek Zernadj
- Dr. Benaissa Yousra
- Dr. Belgacem. Abdelli
- Dr. Asma Ammari
- Dr. Samir Bourekache
- Mme. Dalila Hattab
- Mme. Mohamedi Amira

### Important Dates

- Submission Deadline: Sep 10<sup>th</sup>, 2024
- Acceptance Notification: Oct 15<sup>th</sup>, 2024
- Camera Ready: Nov 1<sup>st</sup>, 2024
- Registration: Dec 1<sup>st</sup>, 2024
- Symposium : Jan 29-30th 2025

### Scope:

Computer science is experiencing spectacular advancement in its two aspects: theoretical and applicative. The large number of its applications makes it integrated into social, economic, industrial, Life, etc. The rate of progress of a company or a country is closely related to its mastery of computer science either on its hardware or on its software plan. The last two decades have been marked by several innovative approaches in computer science; hence we no longer talk about Computer science as much as we talk about the concepts of *cloud computing*, *internet of things*, *artificial intelligence*, *pattern recognition*, *virtual reality*, and especially this last time of *deep learning*, of "machine learning" or very briefly a new stream of research called: "Data science". The objective of the organization of this event fits perfectly with these mentioned aspects of IT, by the theoretical, application-oriented and all innovative trends. It is an event bringing together renowned international researchers and young researchers to present and discuss their most recent work and which will mark the coming years in this crucial emerging field.

### Topics of Interest:

The ISNIB aims at bringing together researchers and practitioners designing and deploying systems that belong to one of the six tracks of the symposium. Topics of interest include, but are not limited to:

#### Artificial Intelligence track topics:

- Multi-Agent systems
- Ambient Intelligence
- Smart cities, Smart houses, Smart grids
- Robotics
- IoT, Cloud Computing, cyber-physical systems
- Genetic algorithms and evolutionary methods
- Digital Twin (DTs)
- Data-centric systems
- Industry 4.0, Agriculture 4.0
- Smart farming
- Prognostic and Health Management
- Deep learning

#### Image and artificial life track topics:

- Image synthesis
- Artificial life
- Image processing
- Crowd simulation
- Virtual environment
- Automatic image & video annotation
- Content-based image retrieval
- Cryptography, steganography & watermarking
- Image coding and compression
- Image filtering, smoothing, and enhancement
- Image segmentation, feature detection and extraction
- Augmented and mixed reality
- Biometrics, facial recognition
- Object detection and recognition

## Scientific committee

1. Abdelhamdi Mellouk (France)
2. Abdelhamid Djefal (Algeria)
3. Abdelkader Laouied (Algeria)
4. Abdelkarim Amirat (Algeria)
5. Abdelmalik Bachir (Algeria)
6. Abdelmalik Taleb-Ahmed (France)
7. Abdenmour Hadid (Finland)
8. Abdessattar Ben Amor (Tunisia)
9. Ahmed Al-Haddad (Egypt)
10. Ahmed Tibermacine (Algeria)
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19. Djamel Saidouni (Algeria)
20. Djemaa Boukhrouf (Algeria)
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22. Faiza khelaf (Algeria)
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25. Fouzi Harrag (Algeria)
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34. Houcine Belouaar (Algeria)
35. Ibrahim Ledjel (Algeria)
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41. Khaled Rezeg (Algeria)
42. Kishor Trivedi (USA)
43. Laid Kahloul (Algeria)
44. Laila Djerou (Algeria)
45. Lamia Hamza (Algeria)
46. Malika Boukala (Algeria)
47. M'hamed Fayçal Bouyakoub (Algeria)
48. Mohamed Cheriet (Canada)
49. Mohamed Gharbi (France)
50. Mohamed Khalgui (China)
51. Mohamed Amine FERRAG (Algeria)
52. Mohamed Awad ben Mobarek (UK)
53. Mohamed Chaouki Babahenini (Algeria)
54. Mohamed Fouzi Zerarka (Algeria)
55. Mohamed Lamine Kerdoudi (Algeria)
56. Mohamed Taib Laskri (Algeria)
57. Monji Kherallah (Tunisia)
58. Mounir Benaissa (Tunisia)
59. Nadia Benseghir (Algeria)
60. Nadia Hamani (France)
61. Nasreddine Lagraa (Algeria)
62. Noureddine Chaib (Algeria)
63. Noureddine Chikouche (Algeria)
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69. Rachida Saouli (Algeria)
70. Ramzi Mahmoudi (Tunisia)
71. Saber Benharzallah (Algeria)
72. Sadek Labib Terrissa (Algeria)
73. Safa Meraghni (France)
74. Salim Bitam (Algeria)
75. Salim Chikhi (Algeria)
76. Samir Bourrekache (Algeria)
77. Sami Omar Oubbati (France)
78. Samir Benahmed (Tunisia)
79. Samira Moussaoui (Algeria)
80. Sihem Slatnia (Algeria)
81. Sofiane Yous (Ireland)
82. Sofiane Zaidi (Algeria)
83. Soheyb Ayad (Algeria)
84. Souheib Baair (France)
85. Soumia Sahraoui (Algeria)
86. Tewfik Ziadi (France)
87. Vain Juri (Estonia)
88. Yue Meiling (China)
89. Zeina Elmasry (France)
90. Zekri Iougmiri (Algeria)
91. Zouina Doukha (Algeria)

## Software engineering track topics:

- Distributed, complex, embedded and critical systems
- Business process modeling, software production lines
- Formal specification, modeling and verification
- Reconfigurable systems development
- Blockchain, IoT, Cloud Computing

## Computer Networks track topics:

- Intrusion Detection
- 5G networking
- Wireless networking
- Intelligent Network Technologies for the IoT
- Software-defined networks (SDN)
- Wireless sensor networks and Intelligent Networks
- IoT, Cloud computing, Edge computing

## Data mining and optimization:

- Theory, algorithms and models of data mining
- Machine learning for data mining
- Statistical methods for data mining
- Data mining systems
- Data mining in personalization and recommendation
- Similarity-Based Reasoning
- Data models and architectures
- Algorithmic Game Theory
- Sub-modular Optimization
- Graph Theory and Graph Algorithms
- Combinatorial Optimization and Scheduling
- Optimization Algorithms in Machine Learning

## Parallel Computing and Systems

- Software-defined fog node in blockchain architecture
- Multi clustering approach in mobile edge computing
- Distributed computing & smart city services
- Geo distributed fog computing
- Distributed trust protocol for IaaS cloud computing
- Parallel vertex-centric algorithms
- Partitioning algorithms in mobile environments
- Distributed computing with delay tolerant network

## How to submit:

Authors are invited to submit **high-quality original papers** reporting original research of theoretical or applied nature for presentation at the Symposium and publication in the **ISNIB'2025** Proceedings. All papers will be reviewed and evaluated by at least three independent experts and selected based on their originality, merit, and relevance to the Symposium.

The manuscripts must be prepared in English, following the **IEEE two-column** Manuscript Templates for Symposium Proceedings with a maximum length of **six (6) printed pages** including text, figures, and references.

Submissions will be made using the CMT Microsoft system. The Symposium submission link is the following: <https://cmt3.research.microsoft.com/ISNIB2025>