Symposium honorary chair:
Pr. Ahmed Boutarfaia
Pr. Abdellah Attaf

Program committee chairs:
Pr. Abdelhamid Djeffal
Pr. Laid Kahloul

Tracks Chairs:

Artificial Intelligence
Pr. Okba Kazar
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
Pr. Laid Kahloul

Data mining and optimization
Pr. Abdelhamid Djeffal
Pr. Leila Djerou

Parallel Computing and Systems
Pr. Rachida Saouli
Dr. Mohamed Faouzi Zerarka

Organizing committee chair:
Dr. Okba Tibermacine

Organizing committee
- Dr. Abdelhak Merizig
- Dr. Abdelmoumen Zerari
- Dr. Ahmed Aloui
- Dr. Belgacem. Abdelli
- Dr. Bilal Mokhtari
- Mme. Dalila Hattab
- Dr. Djouhar Akrour
- Dr. Faycal Guerrouf
- Dr. Houcine Belouaar
- Dr. Meftah Zouai
- Dr. Mohamed Nadjib Meadi
- Dr. Mohamed Lamine Kerdoudi
- Dr. Naidji Ilyes
- Dr. Samir Tigane
- Dr. Soheyb Ayad
- Dr. Tarek Zernadji
- Mr. Toufik Bendahmane

Important Dates

- Submission Deadline: *August 10th, 2022*
- Acceptance Notification: *Sep 15th, 2022*
- Camera Ready: *Oct 1st, 2022*
- Registration: *Oct 1st, 2022*
- Symposium : *Dec 7-8th 2022*

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 Djeffal (Algeria)
3. Abdelkader Laouied (Algeria)
4. Abdelkarim Amirat (Algeria)
5. Abdelmalik Bachir (Algeria)
6. Abdelmalik Taleb-Ahmed (France)
7. Abdennour Hadid (Finland)
8. Abdessattar Ben Amor (Tunisia)
9. Abdellah Kouzou(Algeria)
10. Ahmed Al-Haddad (Egypt)
11. Ahmed Tibermacine (Algeria)
12. Alireza Souri (Turkey)
13. Allaoua Chaoui (Algeria)
14. Asma Benabdallah (Tunisia)
15. Bilal Mokhtari (Algeria)
16. Bouatouch Kadi (France)
17. Chaker Abdelaziz Kerrache (Algeria)
18. Cheddad Abbas (Sweden)
19. Djamel Saidouni (Algeria)
20. Djemaa Boukhlouf (Algeria)
21. Eglin Véronique (France)
22. Faiza khelaf (Algeria)
23. Farida Cheriet (Canada)
24. Foudil Cherif (Algeria)
25. Fouzi Harrag (Algeria)
26. Fowler Scott (Sweden)
27. Guérin Éric (France)
28. Habib Kammoun (Tunisia)
29. Hamadi Bennoui (Algeria)
30. Heddi Bedoui (Tunisia)
31. Houari Toubakh (Algeria)
32. Houcine Belouaar (Algeria)
33. Ibrahim Ledjdel (Algeria)
34. Jalel Ben Othman (France)
35. Kamal barkaoui (France)
36. Kamal eddine Melkemi (Algeria)
37. Kamel Berkaoui (France)
38. Karim Djouani (France)
39. Khaled Rezeg (Algeria)
40. Kishor Trivedi (USA)
41. Laid Kahloul (Algeria)
42. Laila Djerou (Algeria)
43. Lamia Hamza (Algeria)
44. Malika Boukala (Algeria)
45. M'hamed Fayçal Bouyakoub (Algeria)
46. Mohamed Cheriet (Canada)
47. Mohamed Gharbi (France)
48. Mohamed Khalgui (China)
49. Mohamed Amine FERRAG (Algeria)
50. Mohamed Awad ben Mobarek (UK)
51. Mohamed Chaouki Babahenini (Algeria)
52. Mohamed Fouzi Zerarka (Algeria)
53. Mohamed Lamine Kerdoudi (Algeria)
54. Mohamed Taib Laskri (Algeria)
55. Monji Kherallah (Tunisia)
56. Mounir Benaissa (Tunisia)
57. Nadia Benseghir (Algeria)
58. Nadia Hamani (France)
59. Nasreddine Lagraa (Algeria)
60. Noureddine Chaib (Algeria)
61. Noureddine Chikouche (Algeria)
62. Noureddine Djedi (Algeria)
63. Noureddine Zerhouni (France)
64. Okba Kazar (Algeria)
65. Olfa Mosbahi (Tunisia)
66. Omar Sami Oubbati (France)
67. Rachida Saouli (Algeria)
68. Ramzi Mahmoudi (Tunisia)
69. Riadh Ajgou (Algeria)
70. Saber Benharzallah (Algeria)
71. Sadek Labib Terrissa (Algeria)
72. Safa Meraghni (France)
73. Salim Bitam (Algeria)
74. Salim Chikhi (Algeria)
75. Samir Bourrekkache (Algeria)
76. Sami Omar Oubbati (France)
77. Samir Benahmed (Tunisia)
78. Samira Moussaoui (Algeria)
79. Sihem Slatnia (Algeria)
80. Sofiane Yous (Irland)
81. Sofiane Zaidi (Algeria)
82. Soheyb Ayad (Algeria)
83. Souheib Baarir (France)
84. Soumia Sahraoui (Algeria)
85. Tewfik Ziadi (France)
86. Vain Juri (Estonia)
87. Yue Meiling (China)
88. Zeina Elmasry (France)
89. Zekri lougmiri (Algeria)
90. 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 **IEEE-ISNIB'2022** 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 EasyChair system. The Symposium submission link is the following: https://easychair.org/my/conference?conf=isnib2022