



كلية العلوم  
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 Faculté des Sciences

# International Conference: New Trends In Computer Science NIT'22



جامعة محمد الأول وجدة  
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 UNIVERSITÉ MOHAMMED PREMIER OUJDA

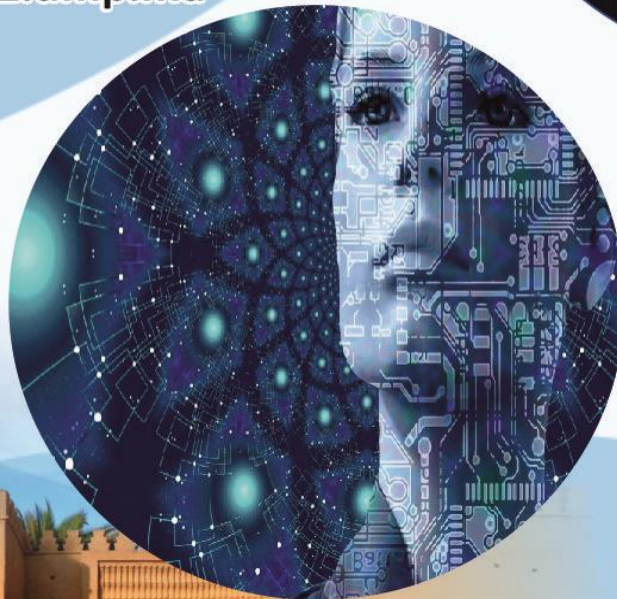
Organized by  
 Computer Science Research Laboratory



December 8-9, 2022

Faculty of Sciences  
 Mohammed First University  
 Oujda, Morocco

<http://nti22.ump.ma>



## TOPICS

- Communication networks
- Artificial Intelligence
- Embedded systems and intelligent applications
- Software Engineering



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# NTI'22

## WELCOME MESSAGE FROM GENERAL CHAIRS

Dear Colleagues and Friends,

On behalf of the organizing committee, we are delighted to welcome you to the International Conference “New Trends In Computer Science” (NTI’22).

Given the considerable economic, social, and cultural benefits of scientific research, Morocco is adopting a strategy that encourages scientific research in order to accelerate its international positioning. The computer science field represents one of the main axes of scientific research that can transform Morocco into a platform for information and communication technologies. In order to integrate this approach, the Computer Science Research Laboratory at the Faculty of Sciences of Mohamed First University is organizing an international conference entitled “New Trends In Computer Science (NTI'22).

This conference aims to provide Moroccan and foreign researchers a place of exchange around topics related to computer science. It will thus allow researchers to present their work and stimulate exchanges between them. NTI'22 also offers researchers an environment for meeting with the various socio-economic actors, thus making it possible to forge essential links and create networks between researchers and professionals.

NTI'22 will be held in Oujda-Morocco, on December 08 – 09, 2022.

Let us wish that all the participants of NTI'2022 would have a wonderful and fruitful time at the conference and a wonderful and enjoyable stay in Oujda, Morocco.

**Organization committee**

**NTI22' LOCATION:**

**Amphi G – Faculty of Science Oujda**



## NTI'22 MAIN TOPICS

<b>Session 1</b>	<b>ARTIFICIAL INTELLIGENCE APPLICATIONS SMART EMBEDDED SYSTEMS</b>
<b>Session 2</b>	<b>SECURITY SOFTWARE ENGINEERING</b>
<b>Session 3</b>	<b>NATURAL LANGUAGE PROCESSING DATA MINING</b>

### PRESENTATION GUIDELINES :

- ✓ Presentations can be given in English or French.
- ✓ Each presentation is ten (10) minutes long with five (05) minutes for Q/As (Please, start and end your presentation on time and keep the time schedule).
- ✓ Arrive 10 minutes before the session start time to upload your presentation.

### INTERNATIONAL CONFERENCE NEW TRENDS IN COMPUTER SCIENCE (NTI'22)

08-09 December 2022  
FACULTY OF SCIENCES,  
MOHAMMED FIRST UNIVERSITY – OUJDA / MOROCCO  
<http://nti22.ump.ma>

# Program Overview

Thursday , December 08, 2022	
08:30 - 09:00	<b>Reception of Participants and Registration</b>
09:00 - 09:30	<b>Opening Ceremony</b>
9:30 - 10:00	<b>Coffee Break</b>
10:00 - 11:00	<b>Moderator: Prof. Abdelhak Lakhouaja</b>
	<b>Speaker 1: Prof. MOSTAFA DAOUDI</b> <b>Title: <i>THE CLOUD COMPUTING BASICS</i></b>
11:00 - 13:00	<b>Session1: ARTIFICIAL INTELLIGENCE APPLICATIONS</b> <b>SMART EMBEDDED SYSTEMS</b> <b>Moderator: Profs. Karima Aissaoui, Mohammed Amine Kasmi</b>
13:00 - 15:00	<b>Lunch</b>
15:00 - 16:00	<b>Moderator: Prof. Abdelaziz Ait Moussa</b>
	<b>Speaker 2: Prof. MOSTAFA AZIZI</b> <b>Title: <i>SECURITY CHALLENGES WITHIN INDUSTRY 4.0</i></b>
16:00 - 16:30	<b>Coffee Break</b>
16:30 - 18:30	<b>Sessions 2: SECURITY</b> <b>SOFTWARE ENGINEERING</b> <b>Moderator: Profs. Gabli Mohammed, Mazouz Sanae</b>

## Friday, December 09, 2022

	<b>Moderator: Prof. Mohammed Serrhini</b>
09:00 - 10:00	<b>Speaker 3: Prof. NOUREDDINE KERZAZI</b> <b>Title:</b> <i>AI-ASSISTED DR DIAGNOSIS:APPLICATIONS, PRACTITIONER EXPERIENCES, AND NEURO-SYMBOLIC TECHNIQUES</i>
10:00 - 10:30	<b>Coffee Break</b>
10:30 - 12:30	<b>Session 3: NATURAL LANGUGAGE PROCESSING</b> <b>DATA MINING</b> <b>Moderator: Profs. Abdelouafi Meziane, Imad Zeroual</b>
12:30 - 12:45	<b>Closing Ceremony</b>
14:00	<b>Lunch</b>

# Sessions Detail

**Thursday , December 08, 2022**

<b>Thursday , December 08, 2022</b>				
<b>Session 1</b>	<b>Session Topic</b>	<b>ARTIFICIAL INTELLIGENCE APPLICATIONS SMART EMBEDDED SYSTEMS</b>		
	<b>Moderators</b>	<b>Prof. Karima Aissaoui &amp; Prof. Mohammed Amine KASMI</b>		
	<b>Time</b>	<b>Paper Id</b>	<b>Papers Title</b>	<b>Authors</b>
	11:00 -10:15	<b>9</b>	Towards an Artificial Intelligence approach for a better predictive analysis: Applications in supply chain management and road traffic	Ilham Slimani, Sanae Mazouz and Ilhame El Farissi
	11:15 - 11:30	<b>18</b>	A Collaborative Stratified IoT IDS based on Deep Learning	Idriss Idrissi, Mostafa Azizi and Omar Moussaoui.
	11:30 - 11:45	<b>19</b>	Agent-based modelling of Smart home energy and water consumption modelling system	Abdelkader Bouazza, Mohcine Kodad and Mostafa Azizi
	11:45 - 12:00	<b>20</b>	Toward Generative Deep Learning Models on facial portrait using text description	Mohammed Berrahal and Mostafa Azizi
	12:00 - 12:15	<b>21</b>	Forest Fire Monitoring and Detection based on IoT and Deep Learning Classification	Mounir Grari, Mimoun Yandouzi, Berrahal Mohammed, Mohamed Boukabous, Idriss Idrissi, Omar Moussaoui, Mostafa Azizi and Mimoun Moussaoui
	12:15 - 12:30	<b>24</b>	Convolutional Neural Networks for Forest Fire Detection and Monitoring	Mimoun Yandouzi, Mounir Grari, Mohammed Berrahal, Mohammed Boukabous, Omar Moussaoui, Mostafa Azizi, Kamal Ghoumid and Aissa Kerkour Elmiad
12:30 - 12:45	<b>5</b>	Green optimization for energy cellular networks using African buffalo algorithm	Ayoub Chehlafi, Mohammed Gabli and Soufiane Dahmani	
12:45 - 13:00	<b>7</b>	Plant health - Detecting leaf diseases	Fatima Zahra Fandi, Mohamed Ghzouani and Mohamed Azzouazi	



<b>Session 2</b>	<b>Session Topic</b>	<b>SECURITY SOFTWARE ENGINEERING</b>		
	<b>Moderators</b>	<b>Prof. Mohammed Gabli &amp; Prof. Sanae Mazouz</b>		
	<b>Time</b>	<b>Paper Id</b>	<b>Papers Title</b>	<b>Authors</b>
	16:30 -16: 45	3	Security Governance in IOT Environment: a state of Art	Ilyass Mokhtari and El Miloud Jaara.
	16:45- 17:00	6	Machine Learning Techniques to Detect Intrusions	Abdelali Saidi.
	17:00 - 17:15	10	Fault attack recognition into a smartcard using an optimized neural network	Ilhame El Farissi, Ilham Slimani and Sanae Mazouz.
	17:15 - 17:30	22	Security Intelligence on Exchanged Multimedia Messages Based on Deep Learning	Mohammed Boukabous and Mostafa Azizi.
	17:30 - 17:45	23	A new lightweight authenticity scheme suitable for constrained environments	Mouna Boujrad, Noura Ouerdi and Mohammed Amine Kasmi.
	17:45 - 18:00	29	Applying Risk Assessment and Security Management to IoT-Forest Fires Detection System	Ghizlane Benzekri, Idriss Idrissi, Omar Moussaoui and Ali El Moussati.
	18:00 - 18:15	26	Exchanging medical information between distributed healthcare	Sanae Mazouz, Ilhame El Farissi and Ilham Slimani.
18:15 - 18:30	14	Critical issues affecting an ERP implementation in the context of Moroccan SMEs	Yassine Zouhair, Mustapha Belaisaoui and Younous El Mrini.	
18:30 - 18:45	17	A Brief Survey of Cloud Computing	Hicham Boudlal, Mohammed Serrhini and Ahmed Tahiri.	

<b>Session 3</b>	<b>Session Topic</b>	<b>Natural Language Processing Data mining</b>		
	<b>Moderators</b>	<b>Prof. Abdelouafi Meziane &amp; Prof. Imad Zeroual</b>		
	<b>Time</b>	<b>Paper Id</b>	<b>Papers Title</b>	<b>Authors</b>
	10:30 - 10:45	12	Impact of deep learning techniques on L1 readability assessment	Safae Berrichi, Naoual Nassiri, Azzeddine Mazroui and Abdelhak Lakhouaja
	10:45 - 11:00	8	Arabic Morphological Word Embeddings	Nabil Ababou, Azzeddine Mazroui and Mohamed El Mohadab
	11:00 - 11:15	13	Arabic Text Categorization: Challenges and opportunities	Anoual El Kah and Imad Zeroual
	11:15 - 11:30	15	Étiquetage semi-automatique d'un corpus MSA	Samir Belayachi and Azzeddine Mazroui.
	11:30 - 11:45	16	Part-Of-Speech Tagging Arabic Text Using Splines Functions	Nadia Khlif, Nabil Ababou and Azzeddine Mazroui
	11:45 - 12:00	11	Automatic approaches for simplifying Arabic texts	Naoual Nassiri, Safae Berrichi, Abdelhak Lakhouaja and Azzeddine Mazroui
12:00 - 12:15	4	Mining association rules: an overview and comparison	Mohamed Meftah, Soumaya Ounacer and Mohamed Azzouazi	
12:15 - 12:30	28	Use Of Filters in Signal Processing	Ahmed Boumesaoud, Mohammed Serrhini and Ahmed Tahiri	

# NTI'22

## ORGANIZING COMMITTEE

- Pr. El Miloud JAARA (Director of the LaRI lab) – Mohammed First University
- Pr. Azzeddine MAZROUI (Coordinator) – Mohammed First University
- Pr. Mohammed SERRHINI – Mohammed First University
- Pr. Mohammed Amine KASMI – Mohammed First University
- M. Ayoub EL OUTMANI – Mohammed First University
- M. Samir BELAYACHI – Mohammed First University
- Mme. Ouiame AZZAOUI – Mohammed First University
- Mme. Hajar MAKHOUKHI – Mohammed First University



