الجمهورية الجزائرية الديمقراطية الشعبية
People's Democratic Republic of Algeria
وزارة التعليم العالي و البحث العلمي
Ministry of Higher Education and Scientific Research
جامعة غرداية
University of Ghardaia

كلية العلوم و التكنولوجيا
Faculty of Sciences and Technology

مخبر الرياضيات والعلوم التطبيقية
Laboratory of Mathematics and Applied Sciences

Organize:

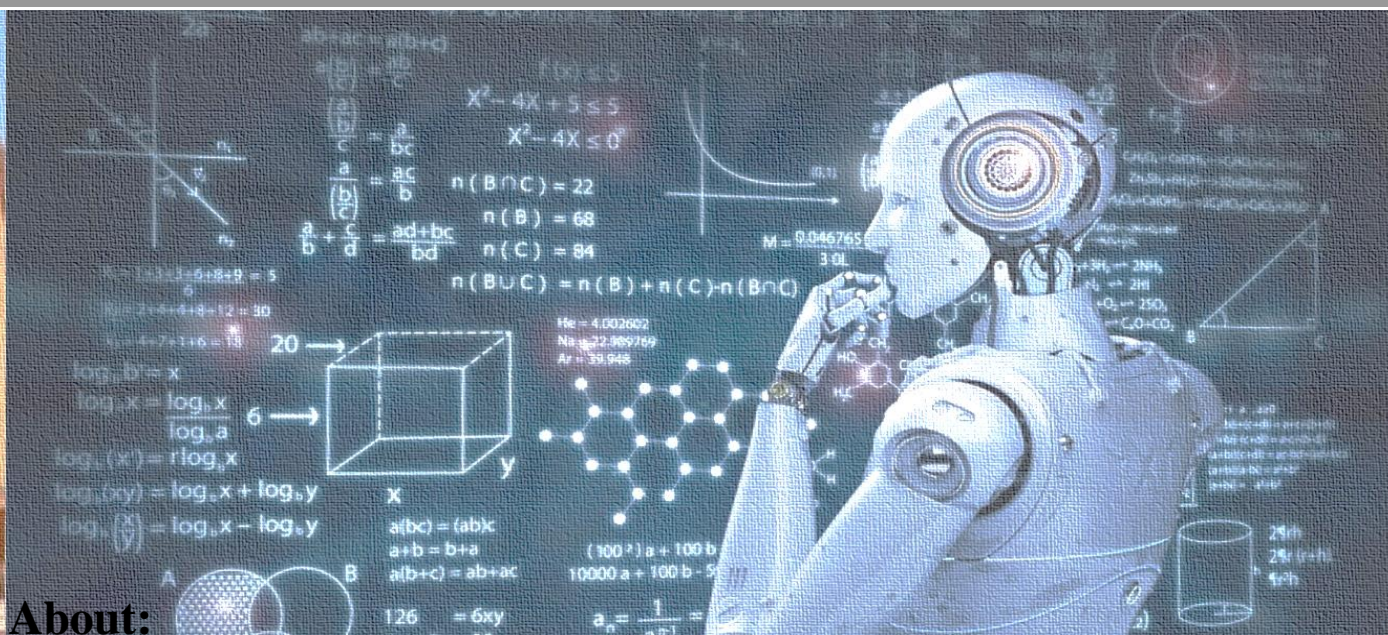**Study days on:**

Deep Learning and Big Data Challenges

April 29 and 30, 2023

Pol 02 University of Ghardaia

About:

These study days are part of the activities of the LMSA laboratory (Laboratoire des Mathématiques et Sciences Appliquées) and within the framework of the training to strengthen the doctoral program in computer science "Artificial Intelligence and Big Data" for the year 2021/2022." Deep learning, a subfield of machine learning, uses artificial neural networks with multiple layers to learn from data. With the rise of big data comes the need for scalable and efficient deep learning algorithms that can handle massive amounts of data while still maintaining accuracy and interpretability of the outputs.

In this context our study days try to highlight the challenges associated with deep learning and big data from the perspective of computer science. The program of the study days aims to be progressive, from initiation to an advanced stage of the topic being addressed. It includes an historical overview of artificial intelligence, a simple introduction to machine learning, a discussion of big data challenges, and some advanced technologies of deep learning as fine tuning LLM, generative models, deep reinforcement learning, and advanced deep learning models.
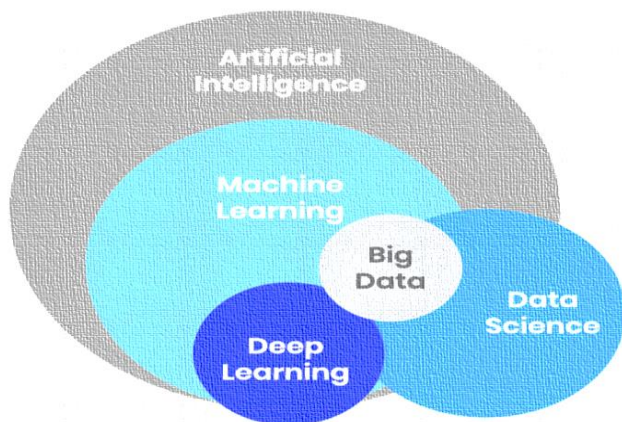
Saturday, 29 of April

Time	Type	Speaker	Title
8:30-8:45		Welcome Reception	
8:45-9:15		Opening Ceremony	
9:15-09:35	KL	Slimane Oulad-Naoui, Ghardaia University	On the long path of AI: from the imitation game to ChatGPT
09:35-10:35	IS	Slimane Bellaouar, Ghardaia University	Simple Introduction to Machine Learning
10:35-11:00		Coffee Break	
11:00-12:00	IS	Attia Nehar, Ziane Achour University, Djelfa	Fine Tuning Large Language Models
12:00-12:45	IS	Habiba Benabderrahmane, Amar Telidji University, Laghouat	Big Data Technology
12:45-14:00		Lunch	
14:00-15:15	IT	Abdelouahab Moussaoui, Ferhat Abbas University, Sétif 1	Generative Models: Concepts, techniques and Applications
15:15-15:40		Coffee Break	
15:40-16:40	IT	Abdelouahab Moussaoui, Ferhat Abbas University, Sétif 1	Self-Supervised and Deep Reinforcement Learning

Honorary Presidents:

Pr. Ilyes Bensaci: Rector of University of Ghardaia
Dr. Radhwane Sadouni: Dean of the Faculty of Sciences and Technology.
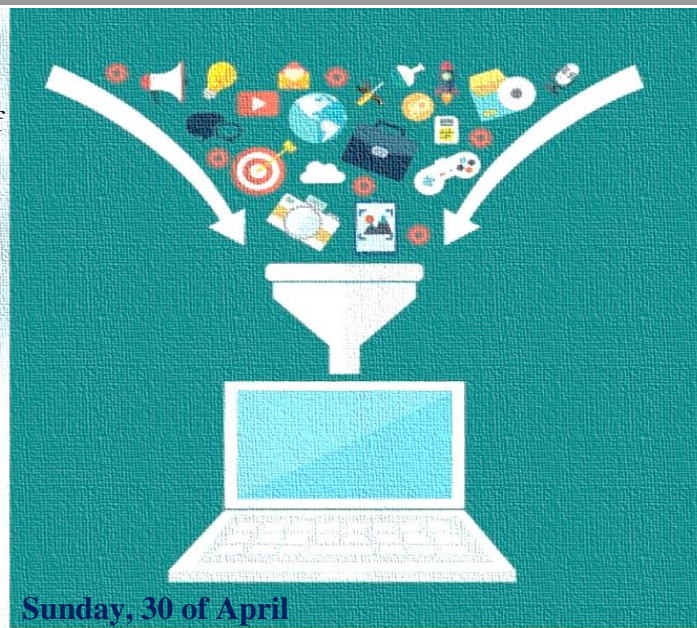
Study days President:

Dr. Slimane Bellaouar: laboratory director (LMSA)

Scientific Committee:

- Pr. Djelloul Ziadi (Rouen University, French).
- Pr. Hadda Cherroune (Amar Telidji University, Laghouat).
- Dr. Chaker Abdelaziz Kerrache (Amar Telidji University, Laghouat).
- Dr. Youness Guellouma (Amar Telidji University, Laghouat).
- Dr. Slimane Bellaouar (University of Ghardaia).
- Dr. Slimane Oulad-Naoui (University of Ghardaia).
- Mr. Abderrahmane Adjila (University of Ghardaia).

Organizing Committee:

- Dr. Abdelkarim Kina (University of Ghardaia).
- Mr. Abderrahmane Adjila (University of Ghardaia).
- Dr. Slimane Bellaouar (University of Ghardaia).
- Dr. Slimane Oulad-Naoui (University of Ghardaia).
- Mr. Youcef Mahdjoub (University of Ghardaia).
- Ms. Habiba Benabderrahmane (University of Ghardaia).
- Mr. Ahmed Saidi (University of Ghardaia).
- Mr. Abdelkader Bouhani (University of Ghardaia).

Sunday, 30 of April

Time	Type	Speaker	Title
09:00-10:35	IT	Abdelouahab Moussaoui, Ferhat Abbas University, Sétif 1	New Advanced Deep Learning Models and their Applications for Text, Signal and Image
10:35-11:00		Coffee Break	
11:00-11:25		Doctorial Session 1	
		Session Chair: Hadda Cherroune, UAT Laghouat	
	DO	Feriale Lahrache, Ghardaia University	Semantic Segmentation of Images: from Traditional to Deep learning Approaches
11:25-11:50		Doctorial Session 2	
		Session Chair: Hadda Cherroun, UAT Laghouat	
	DO	Eloualid Rezzag, Ghardaia University	SPARK: Algorithms on Automata
11:50-12:15		Doctorial Session 3	
		Session Chair: Youness Guellouma, UAT Laghouat	
	DO	Abdelfateh Bekkair, Ghardaia University	Discovery of Hidden Patterns: A Guide to Detecting Communities in Networks
12:15-14:00		Lunch	
14:00-15:15	IS	Djelloul Ziadi, Rouen University, French	Open debate on PhD Student and scientific research
15:15-15:40		Coffee Break	
15:40-16:30	IS	Djelloul Ziadi, Rouen University, French	Open debate on PhD Student and scientific research
16:30-16:40		Conclusion	