



January 8–9, 2026
Sidi Bou Saïd Hotel, Sidi Dhrif, Tunisia

TOPIC AREAS

RIEMANNIAN MACHINE LEARNING
INVARIANT THEORY
GEOMETRIC MACHINE LEARNING
LARGE LANGUAGE MODELS (LLMS)
CULTURAL HERITAGE
MEDICAL IMAGING
REMOTE SENSING
FEDERATED LEARNING
TEMPORAL SERIES FOR REMOTE SENSING
TEXTURE ANALYSIS
COLOR AND MULTIVALUED TEXTURE ANALYSIS
MORPHING ATTACKS

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IXth EDITION

RFMI 2026

January 8–9, 2026
Sidi Bou Saïd Hotel, Sidi Dhrif, Tunisia

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Program



DAY 1: Thursday, January 8, 2026

08:00 – 09:00	Registration		
09:00 – 10:00	Poster Session P1 Chair: Prof. Slim Mhiri (CRISTAL-GRIFT/ENSI, Tunisia)		
10:00 – 10:20	Coffee Break		
10:20 – 11:30	Opening conference : Pr. Liming Chen Talk title : A research journey from face analysis to robot learning (University professor at Ecole Centrale de Lyon (France) and member of the Institut Universitaire de France, France)		
11:30 – 12:00	Pr. Boulbaba Ben Amor From all shapes to 'zero' shape: the paradigm shift in structural biology (Professor at IMT North Europe (France) and Director of AI for Good (United Arab Emirates))		
12:00 – 13:30	Lunch Break		
13:30 – 15:30	Oral Session 1 Chair: Dr. Emna Ghorbel (CRISTAL-GRIFT/ENSI, Tunisia)	13:30 – 14:00	Pr. Slim Mhiri Uncertainty aware medical pattern recognition (CRISTAL-GRIFT/ENSI, Tunisia)
		14:00 – 14:30	Dr. Engie Ghorbel Dimensionality reduction on Riemannian spaces (CRISTAL-GRIFT/ENSI, Tunisia)
		14:30 – 15:00	Pr. Valerie Burdin Statistical Shape Models: New Challenges (IMT Atlantique, LATM INSEEM 1101, France)
		15:00 – 15:30	Dr. Mohamed Amine MEZGHICH Enhancing Deep Learning Models through Invariant Shape Descriptors (CRISTAL-GRIFT/ENSI, Tunisia)
15:30 – 16:00	Coffee Break		
16:00 – 17:30	Special Session 1 Chair: Prof. Amor Moshab (Higher Institute of Biotechnology of Sidi Thabet, Tunisia)	16:00 – 16:30	MC. Soumaya Khoudihi When the image becomes data. Computer Vision at the heart of precision oncology (Higher Institute of Biotechnology of Sidi Thabet, Tunisia)
		16:30 – 17:00	Farah Gharbi Machine learning for the classification of genetic deafness: Development of a specific prototype to the molecular etiologies of the GJB3 gene (Phdior Institute of Tunis, Tunisia)
		17:00 – 17:30	Kamila Sahli Prediction of pathogenic variants in the human genome, with a focus on BRCA2 breast cancer mutations, using deep learning and language models (Higher Institute of Biotechnology of Sidi Thabet, Tunisia)



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DAY 2: Friday, January 9, 2026

09:00 – 10:00	Poster Session P2 Chair: Dr. Majdi Jribi (CRISTAL-GRIFT/ENSI, Tunisia)		
10:00 – 10:30	Opening conference : Pr. Ameur Cherif President of the University of Manouba, Tunisia		
10:30 – 11:00	Coffee Break		
11:00 – 12:00	Tutoriel : Pr. Faouzi Ghorbel Interest of Invariant Theory and Riemannian Approaches in Machine Learning (CRISTAL-GRIFT/ENSI, Tunisia)		
12:00 – 13:30	Lunch Break		
13:30 – 15:15	Oral Session 2 Chair: Dr. Mohamed Amine Mezghich (CRISTAL-GRIFT/ENSI, Tunisia)	13:30 – 14:15	Prof. Noel Richard Metrics and analysis of multiband data under metrological constraint (ULM-SIC Laboratory, University of Poitiers, France)
		14:15 – 14:45	Dr. Sinda El Ghoul Riemannian Registration (CRISTAL-GRIFT/ENSI, Tunisia)
		14:45 – 15:15	Dr. Hermine Chatoux Metrology and key-point detection: a generic approach (University of Bordeaux, France)
15:15 – 15:45	Coffee Break		
15:45 – 16:45	Special session 2 Chair MC. Dorsaf Sebai (CRISTAL-GRIFT/ENSI, Tunisia)	15:45 – 16:15	Dr. Zeineb Othmeni An integral and invariant descriptor under SE(3) for 3D facial recognition (CRISTAL-GRIFT/ENSI, Tunisia)
		16:15 – 16:45	Dr. Hanen Bati SmartSDG Tunisia, Artificial Intelligence and Satellite Imagery in the Service of the SDGs in Tunisia (PHADENIS, Tunisia)
16:45 – 17:45	Arts-PI Steering Meeting for the X th RFMI Edition		
17:45	Sightseeing tour & gala evening		

09:00 – 09:10	SP 1 - 1	Marlem Jendoubi, Mohamed Amine Mezghich, Slim Mhiri Enhancing U-Net with Invariant Descriptors for Medical Image Segmentation (CRISTAL Laboratory-GRIFT, ENSI)
09:10 – 09:20	SP 1 - 2	Nader Belhadj, Mohamed Amine Mezghich, Lassaad Latrach Multi-Class Diabetic Retinopathy Classification Using Transfer Learning and ROC-Aware Deep Models (HANA Laboratory, ENSI)
09:20 – 09:30	SP 1 - 3	Amen Allah Zoghلامي, Majdi Jribi 3D Approach for Dementia Detection Using MRI Images (CRISTAL Laboratory-GRIFT, ENSI)
09:30 – 09:40	SP 1 - 4	Salma Ferjani, Dorra Dhouib Automated Malaria Parasite Classification in Microscopic Blood Smear Images Using Machine Learning (CRISTAL Laboratory-GRIFT, ENSI)
09:40 – 09:50	SP 1 - 5	Raja Ibnelbey, Dorsaf Sebai, Faouzi Ghorbel Camel Welfare Assessment: Frameworks, Influencing Factors, and Emerging Monitoring Approaches (CRISTAL Laboratory-GRIFT, ENSI)
09:50 – 10:00	SP 1 - 6	Hanadi Elsaïlaoui, Mohamed Amine Mezghich, Ridha Ghayoula, Lassaad Latrach Hybrid CNN-GNN Model for Deepfake Image Forensics (HANA Laboratory, ENSI)
10:00 – 10:10	SP 1 - 7	Oumayma Cherni, Ines Ben Alaya, Majdi Jribi Optimisation de l'Acquisition en Imagerie par Résonance Magnétique (IRM) de Diffusion par une Nouvelle Approche Géométrique (CRISTAL Laboratory-GRIFT, ENSI)
10:10 – 10:20	SP 1 - 8	Mohamed Ajili, Mohamed Amine Mezghich, Slim Mhiri Towards Automatic Segmentation and 3D Reconstruction of Spinal Vertebrae Using Deep Learning (CRISTAL Laboratory-GRIFT, ENSI)
10:20 – 10:30	SP 1 - 9	Manel Zouaoui, Dorsaf Sebai , Faouzi Ghorbel Compression d'images par apprentissage fédéré (CRISTAL Laboratory-GRIFT, ENSI)
10:30 – 10:40	SP 1 - 10	Chaïma AThimni, Seïf Eddine Amara, Mohamed Amine Mezghich, Slim Mhiri Deep Learning-Based Early Detection of Breast Cancer in Mammography Images: Impact of Image Enhancement Techniques (CRISTAL Laboratory-GRIFT, ENSI)
10:40 – 10:50	SP 1 - 11	Malek Dinari, Enjie GHORBEL, Faouzi GHORBEL Machine Learning for Vital Signs Estimation (CRISTAL Laboratory-GRIFT, ENSI)

09:00 – 09:10	SP 2 - 1	Ahmed Omrane, Mohamed Amine Mezghich, Slim Mhiri An Enhanced Customer Segmentation Algorithm Based on the RFM Model Using K-Means Clustering CRISTAL Laboratory-GRIFT, ENSI
09:10 – 09:20	SP 2 - 2	Arwa Habbachi, Majdi Jribi Recalage ordonné des visages 3D en vue de reconnaissance CRISTAL Laboratory-GRIFT, ENSI
09:20 – 09:30	SP 2 - 3	Wafa Janhaoui, Imen Ben Mansour, Moncef Tagina A Comprehensive Survey on Extended Job-Shop Scheduling Problems and Hybrid Reinforcement Learning Evolutionary Algorithms for Intelligent Industrial Systems LARIA Laboratory, ENSI
09:30 – 09:40	SP 2 - 4	Zeineb Bibani, Emna Ghorbel, Faouzi Ghorbel Robust 2D Shape Matching via Nonlinear Quadratic Transformation CRISTAL Laboratory-GRIFT, ENSI
09:40 – 09:50	SP 2 - 5	Bouna Ali Taleb, Chaïma Dhaouadi, Mohamed Amine Mezghich A Realistic Deformation Benchmark for Shape Descriptors CRISTAL Laboratory-GRIFT, ENSI
09:50 – 10:00	SP 2 - 6	Achraf Antri, Dorsaf Sebai Enjeux et approches pour la gestion de l'eau en agriculture CRISTAL Laboratory-GRIFT, ENSI
10:00 – 10:10	SP 2 - 7	Houyeme Baraketi, Mohamed Amine Mezghich, Slim Mhiri Comparative Study of Deep Learning Architectures for Human Activity Detection CRISTAL Laboratory-GRIFT, ENSI
10:10 – 10:20	SP 2 - 8	Dalel Ibnelbey, Emna Ghorbel, Faouzi Ghorbel Data Augmentation Based on Color Morphing for Pest Detection CRISTAL Laboratory-GRIFT, ENSI
10:20 – 10:30	SP 2 - 9	Chaïma Dhaouadi, Mohamed Amine Mezghich, Faouzi Ghorbel Enhancing VGG16 with Analytic Fourier–Mellin Invariants CRISTAL Laboratory-GRIFT, ENSI
10:30 – 10:40	SP 2 - 10	Mayssa Madani Multimodal EEG-fMRI Approaches for Emotion Recognition: A Systematic Review CRISTAL Laboratory-GRIFT, ENSI

