



الجمهورية الجزائرية الديمقراطية الشعبية
Democratic and Popular Republic of Algeria
وزارة التعليم العالي و البحث العلمي
Ministry of Higher Education and Scientific Research
جامعة مصطفى اسطمبولي - معسكر
University Mustapha Stambouli - Mascara
كلية علوم الطبيعة والحياة
Faculty of natural and life sciences



**1st NATIONAL CONFERENCE ON AGRONOMICAL
INNOVATIONS AND DECISION-SUPPORT TOOLS**
12-13 October 2025

CONFERENCE PROGRAM

Mascara, Algeria
12 -13 October 2025

Co-organized by

Geo-Environment and Spaces Development Laboratory

LABTEC-IA Laboratory

Mascara Incubator



Technological Laboratory in Artificial
Intelligence and Food Safety (LABTEC-IA)



MASCARA INCUBATOR

About the 1st NC- AI-Tools 2025

Innovative solutions and decision-support tools are essential for agricultural development and can significantly enhance food security by improving crop management, adapting to climate change, managing resources more efficiently, and facilitating knowledge sharing and capacity building. These advancements are particularly important for our country. The objectives of the 1st NC- AI-Tools 2025 are centered on advancing the field of agronomy through:

- 1) Showcasing recent research findings and breakthroughs,
- 2) Offering a forum for experts to exchange knowledge and best practices,
- 3) Promoting networking and collaboration,
- 4) Pinpointing challenges and prospects in the creation of decision-support tools,
- 5) Assessing the influence of these tools on agricultural output and sustainability, and,
- 6) Inspiring their integration into existing methods, and initiatives. In this conference, we will explore a range of innovative solutions and decision support tools that can help to optimize farming operations, reduce environmental impact, and increase profitability. From precision agriculture and remote sensing to decision support systems and machine learning, we will cover a variety of topics and showcase real-world examples of how these tools are being used to transform agriculture.

The topics below were selected for the **1st NC- AI-Tools 2025**

Topic I. Precision Agriculture & Innovations

- *Smart technology and innovation for farming practices*
- *Harvesting and Post-harvest Management*

Topic II. Decision Support Systems

- *Tools and models for crop and Livestock production and Management*
- *Data quality, integration, and analysis in decision support systems.*
- *Decision Tools for Enhancing Food Security and Safety*

Topic III. Sustainable Agriculture

- *Innovative promoting sustainable agriculture practices*
- *Sustainable agriculture food system.*
- *Biotechnologies in agriculture for food security*



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Day 1
Sunday, 12 October 2025

08:30 - 9:30 Registration (Entrance Hall) and Posters hang-up (Conference Hall)

OPENING CEREMONY

09:00 - 09:30 Welcome Speech: Dean of the Faculty
Official Opening: University Rector
Welcome Speech and Program: Conference Chair



Signature of the partnership agreement between GESDL and LABTEC AI

Morning Session: PRECISION AGRICULTURE & INNOVATIONS

Session Chair: Prof. Mohammed Kamal BENHAOUA, Session Reporter: Dr. Omar BAKHTI



Keynote Speakers

	Presenter's name	Institution	Presentation's title
09:30 - 10:00	Dr. Amine Dehane	University of Oran 1	Exploring the contributions of Machine Learning to Internet of Things (IoT) in the context of Smart Agriculture and Water Quality
10:00 - 10:30	Prof. MERAH Mostefa	University of Mostaganem	Intelligent Monitoring and Decision Support Tools for Early Identification of Leaf Pathologies
10:30 - 11:00	DEBATE		
11:00 - 11:20	COFFEE BREAK		



Oral Communications

	Presenter's name	Institution	Presentation's title
11:20 - 11:30	Noureddine Adjlane	U. Boumerdes	Innovations biotechnologiques pour la sécurité alimentaire : l'apport des projets PRIMA SafeAgroBee et MEDIBEES
11:30 - 11:40	Razika Hattal	U. Mascara	Sustainable Post-Harvest Protection against <i>Trogoderma granarium</i> : Leveraging IPM and Digital Decision Tools
11:40- 11:50	Nasira BENAMARA	U. Sétif	Development of a Tool for Managing Dairy Farming and Heat Stress in Cattle
11:50 - 12:00	CHAIB EDDOUR Ahmed Readh	U. Mostaganem	Valorization of Orange By-Products in the Circular Economy and Poultry Nutrition: A Brief Review

12:00 - 12:10	Zoghlami Mourad	U. Mascara	Développement d'une application androïde utilisant l'intelligence artificielle pour l'appréciation anthropométrique et clinique, la détection des pathologies et la prédiction des capacités productives chez la vache
12:10- 12:20	Souad Makhloifi	CRSTRA Biskra	Exploration of Fungal Cellulase Sources for Agronomic Biotechnology Applications
12:20 - 12:30	Moubarek Mébarki	U. Saida	Bacteriophages as Sustainable and Eco-Friendly Alternatives for Managing Plant Diseases: Brief review
12:30 - 12:40	Houaria Belkebir	U. Mascara	Effect of extraction methods on the physicochemical properties of the aqueous extract of Allium cepa
12:40 -12:50	Benguerai Abdelkader	U. Mascara	Évolution de la production et cartographie des potentialités de la filière arboricole fruitière dans la wilaya de Mascara
12:50 -13:00	Aliane Samia	U. Mascara	Can Microbes Hold the Key to a More Food- Secure Future?
13:00 -13:10	BOUNAB Kheira	U. Mascara	Contribution à l'évaluation de la pollution exogène dans les agrosystèmes et l'intégration des données dans un Système d'Information Géographique. Cas de la plaine de GHRISS - Willaya de Mascara –

DEBATE 

13:10 - 13:20

LUNCH 

13:20 - 14:30

14:30 - 15:00 **Session Poster:** Dr. Cherifa BOUDIA, Dr. Faiza MAHI, Dr. Asmaa BELGHERBI
Poster Session Evaluation (Hall of the building)



Afternoon Session: DECISION SUPPORT SYSTEMS AND SUSTAINABLE AGRICULTURE



Oral Communications

	Presenter's name	Institution	Presentation's title
15:00 - 15:10	MAHMOUDI Fatima	USTO	Biodegradation of Poultry Feathers by Keratinolytic Fungi Isolated from Soil
15:10 - 15:20	Lakhdar OULAD DJEDID	U. Laghouat	A Q-learning based TDMA MAC for WSN
15:20 - 15:30	OULD Ali Ouardia	U. Mascara	Valorization of date Phoenix dactylifera pits on the in minced meat biochemical, sensory and microbiological approach
15:30 - 15:40	METLEF Sarra	U. Chlef	Formulation d'Aliments Nutritifs à Base de Quinoa cultivé en Algérie
15:40 - 15:50	Soumeya KAOUCHE	U. Boumerdes	Study of the zootechnical reproductive balances in some dairy cattle farms based on the ITELV database of Baba Ali (Algeria)
15:50 - 16:00	Youcef FEKIR	U. Mascara	Évaluation du potentiel des données spatiales optique et radar de Sentinel-1 et Sentinel-2 pour la cartographie de l'oléiculture
16:00 - 16:10	Hibat Errahmen MAZARI	U. Mascara	Effet de l'inoculation de PGPR sur la tolérance au cuivre chez Triticum aestivum L.

16:10 - 16:20	Houaria Belkebir	U. Mascara	Phytochemical, antioxidant, and anti-inflammatory properties of jujube honey (El sidr) produced in Algeria.
16:20 - 16:30	Boukhari Yahia	U. Mascara	Irrigation efficiency for sustainable agriculture: the case of the "Habra" irrigated area, wilaya of Mascara
16:30 - 16:40	CHAIB EDDOUR Ahmed Readh	U. Mostaganem	Dried orange (<i>Citrus sinensis</i>) waste improves oxidative status and supports welfare in broiler chickens
16:40 - 16:50	Si Moussa Leila	U. Mascara	In-vitro antifungal activity of <i>Chamaemelum nobile</i> (L.) essential oils (Asteraceae) on <i>Fusarium oxysporum</i> f.sp. <i>lentis</i> and <i>Fusarium solani</i>
16:50 - 17:00	Asmaa GUESSAB	U. Mascara	Efficiency of a post-emergence herbicide ONYX against chickpea weeds
17:00 - 17:10	Samir BERKAT	U. Mascara	Harnessing a rhamnolipid-producing <i>Pseudomonas aeruginosa</i> strain for sustainable soil remediation and agricultural biotechnology
17:10 - 17:20	Bentata M. Nadir	U. Mascara	Smart Irrigation Management Using Artificial Intelligence Techniques : A survey

17:20 - 17:30

DEBATE 

17:30 - 17:50

COFFEE BREAK 

17:50 - 18:00

Conference Closing and Recommendations

Delivery of certificates 



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POSTER SESSION, 12th October 2025 / Poster area
Evaluation

ID	Presenters' Name	Institution	Presentation's title
AI01	Gaid EL HABIB	U. El-Oued	Toxicité des huiles essentielles sur les œufs de Tetranychus urtica (Koch, 1836)
AI02	LOUNIS Fatima Zahra	U. Mascara	Precision Agriculture and Innovation for Sustainable Production in Semi-Arid Zones
AI03	Asmaa BEMMOUSSAT	U. Tlemcen	Impact of saline irrigation water on wheat performance: towards sustainable crop management
AI04	Tahar Yamina	U. Mascara	Antibacterial, antibiofilm activities and chemical composition of essential oil of Calendula officinalis from Algeria
AI05	Zohra Hamaidi	U. Mascara	Isolement et identification des champignons phytoparasites de la tomate et antagonistes des nématodes associés aux cultures maraîchers dans la région de Mostaganem et Oran
AI06	Amina Soltani	U. Mascara	Microbial Biotechnologies for the Biological Control of Fusarium spp.: Toward Sustainable and Secure Agriculture
AI07	Leila Makhloifi	U. Mascara	Characterization and biotechnological valorization of a medicinal plant
AI08	Benmia Kouider	U. Tlemcen	Implementation of the systemic approach and systems engineering in the small dams design

AI09	Fafa Boukhatmi	U. Mascara	Etude des propriétés biologiques des graines de fenouil: <i>Foeniculum vulgare</i> Mill
AI10	MERIEM ADDA BERKANE	U. Mascara	Biological Control Using Essential Oil from the Medicinal Plant <i>Pinus halepensis</i> Against the Flour Moth
AI11	Wahiba Kadri	U. SBA	Extraction du pectine naturelle d'intérêt industriel
AI12	CHAOUATI Karima	U. Médéa	Phytochemical Profiling and Insecticidal Activity of Pistacia Extracts: A Sustainable Approach to Stored-Grain Pest Control
AI13	Afaf Chelli	U. Biskra	Caractérisation physico-chimique et évaluation de la qualité des fruits du palmier dattier
AI14	Chaklala Lahcene	U. Mascara	Towards AI-Based Personalized Recommender Systems for Sustainable Agriculture: Lessons from Public Health Applications
AI15	Zohra Saidane	U. Mostaganem	Étude comparative dans deux établissements d'abattage: approche microbiologique des causes de saisie des poulets de chair (cas de Mostaganem, Algérie)
AI16	Bettahar Kheira	U. Mascara	Innovative Technologies and Decision-Support Tools for Sustainable Agriculture in Arid and Semi-Arid Regions
AI17	SELT Nejla	U. Mascara	Adaptation and Resilience Strategies of Cereal-Livestock Agricultural Production Systems in the Semi-Arid Zones of Northwestern Algeria
AI18	Fadwa Beghdadi	U. Chlef	Actinobacteria as a Valuable Source of Anti-Phytopathogenic Compounds
AI19	Amel BATOUCHÉ	U. Mascara	Characterization of virulence factors in enterococci isolated from fishery products
AI20	KHITER YOUSSEUF	U. Oran1	Le rôle des levures du sol dans l'amélioration de la nutrition des plantes par leur pouvoir de solubilisation du phosphate et du zinc
AI21	Kheireddine Charichi	U. Mascara	The Challenge of Aphids in Fruit Arboriculture and the Imperative for Integrated Pest Management
AI22	BOUYAHIA Hadj	CU. NAAMA	SUSTAINABLE FOOD SYSTEMS THROUGH THE MULTIPLICATION OF LEGUMES BY CUTTINGS "MEDICAGO SATIVA "AT THE LEVEL OF NAAMA