
**2026 International Conference on Circuit,
Systems and Communication**

ICCSC 2026

July 2-3, 2026

Faculty of Sciences Dhar El Mahraz – FSDM

Sidi Mohamed Ben Abdellah University (USMBA)

Fez, Morocco

Welcome from the General Chair

It is my great honor and privilege to welcome you all to ICCSC 2026, the 2026 International Conference on Circuit, Systems and Communication, held in the historic city of Fez, Morocco. This year's conference brings together researchers, engineers, and academics from around the world to share cutting-edge advances in circuits, systems, communications, and related interdisciplinary fields.

The success of ICCSC 2026 is the result of dedicated teamwork and interdisciplinary collaboration across many institutions and countries. I would like to express my deepest gratitude to the Honorary General Chairs, the Program Chairs, the Steering Committee, the Advisory Committees, the Students Committee, and all Technical Program Committee members for their relentless efforts in making this conference a success.

On behalf of the organizing committee, I wish you all a productive and enjoyable conference. May the exchanges and collaborations begun here continue to thrive long after these days in Fez.

Prof. Mohammed EL GHZAoui
General Chair, ICCSC 2026
Sidi Mohamed Ben Abdellah University, Fez, Morocco

Committees

Honorary General Chairs

Mustapha IJJAALI President of SMBA University, Fez, Morocco
Mohammed BELKASMI Dean of FSDM, SMBA University, Fez, Morocco

General Chair

Mohammed EL GHZAOUI Sidi Mohamed Ben Abdellah University, Fez, Morocco

Program Chairs

Sudipta Das IMPS College of Engineering And Technology, West Bengal, India
Hanan El Faylali Ibn Tofail University, Kenitra, Morocco
Bilal AGHOUTANE Nexus Academia Research Group, Copenhagen, Denmark
Program Co-Chairs
Jamal BELKADID Sidi Mohamed Ben Abdellah University, Morocco
Tanvir Islam University of Houston, Houston, USA

Steering Committee

Bilal AGHOUTANE	Nexus Academia Research Group, Copenhagen, Denmark
Jamal BELKADID	Sidi Mohamed Ben Abdellah University, Fez, Morocco
Saïd ECH-CHADI	National School of Applied Sciences of Safi, Cadi AYYAD University, Morocco
Hamid Bezzout	Ibn Tofail University, Kenitra, Morocco
GHAIDA MUTTASHAR ABDULSAHIB	University of Technology, Baghdad, Iraq
Osamah Ibrahim Khalaf	Al-Nahrain University, Iraq
Sudipta Das	IMPS College of Engineering And Technology, West Bengal, India
Rachid El Alami	Sidi Mohamed Ben Abdellah University, Fez, Morocco
Tanvir Islam	University of Houston, Houston, USA

Advisory Committees

Ali Ghorbani	University of New Brunswick, Canada
Aris Ouksel	University of Illinois, Chicago, USA
Belkheir HAMMOUTI	University of Mohammed Premier, Oujda, Morocco
Chakib Bekkali	Sidi Mohamed Ben Abdellah University, Morocco
Elhadi M. Shakshuki	Acadia University, NS Canada
El Houssaine Tissir	Sidi Mohamed Ben Abdellah University, Morocco
Ismail BOUMHIDI	Sidi Mohamed Ben Abdellah University, Morocco
Temcamanl Farid	ENSEA, Cergy-Pontoise, France
Mohammed Nabil KABBAJ	Sidi Mohamed Ben Abdellah University, Morocco
Sicard Etienne	INSA, Toulouse, France

Students Committee

Hanae Mejdoub	FS-USMBA, Fez, Morocco
Kaoutar Elbakkar	FS-USMBA, Fez, Morocco
Fatima Kiouach	FS-USMBA, Fez, Morocco
Serghini Elaage	UMI, Meknès, Morocco
Nour El Houda Nasri	UMI, Meknès, Morocco
Ouafae Elalaouy	UMI, Errachidia, Morocco
En-Naghma Walid	USMBA, Fez, Morocco
Hajar El Ouakili	USMBA, Fez, Morocco
Hamza El Kari	USMBA, Fez, Morocco

TPC Members

Abbade hafsa	Ibn Tofail University
ABDALLAH BAN-NAH MAHAMAT	National Higher Institute of Science and Technology of Abéché
Abdelaali RAHMOUNI	Sidi Mohamed Ben Abdellah University
Abdelali Elmounadi	Mohammed V University
Abdelaziz HJJOUI	National Higher School of Arts and Crafts
ABDELGHANI EL OUGLI	Sidi Mohamed Ben Abdellah University
Abdelghani FAKKAHI	Sidi Mohamed Ben Abdellah University
Abdelghni Lakehal	Abdelmalek Essaadi University (UAE)
Abdelhadi Hassani	Chouaib Doukkali University
Abdelhafid ES-SAQY	Sidi Mohamed Ben Abdellah University (SMBA)
Abdelhalim EL BASSET	Sidi Mohamed Ben Abdellah University
Abdelilah Serji	Mohammed Premier University
ABDEKARIM MOUMEN	Ibn Zohr University
ABDELLATIF ELBADRAOUI	Ibn Tofail University
ABDELLATIF JARJAR	Mohammed I University
Abdelmajid BYBI	Mohammed V University
ABDELMAJID EL KHALFI	Moulay Ismail University
Abdenbi ELYAMANI	Université Ibn Zohr

Abderrahim BAHOUM	Ibn Zohr University
Abla RAHMOUNI	University Sidi Mohamed Ben Abdallah
Achraf Ibnouzaher	Hassan II University
Achraf Jallaglag	Sidi Mohamed Ben Abdellah University
achraf wahid	N/A
Adil JEGHAL	Sidi Mohamed Ben Abdellah University
AHFIR RACHID	Sidi Mohamed Ben Abdellah University
Ahmed Benaoui	Moulay Ismail University
AHMED HAMED	Ibn Tofail University
Ahmed Zinedine	Sidi Mohamed Ben Abdellah University (USMBA)
Ali EL ALAMI	Moulay Ismail University (UMI)
ALI EL MARZOUGUI	Cadi Ayyad University
amal belkadid	N/A
Amal ZOUHRI	Sidi Mohamed Ben Abdellah University
amina lachguer	Ibn Zohr University
Anas bouaouda	Hassan II University of Casablanca
Anass Cherrafi	Cadi Ayyad University
Anca-Adriana PETCUT-LASC	Petroleum-Gas University of Ploiești / Aurel Vlaicu University
Antu Chowdhury	East Delta University
Ashagire Adinew Adele	Bonga University
ASMAA LOUKRISSI	Hassan II University of Casablanca
Asmae Ennaji	Sidi Mohamed Ben Abdellah University (USMBA)
Asmar Khaoula	Sidi Mohamed Ben Abdellah University (USMBA)
Assiya Zahid	ENSA El Jadida
AYA NEJARI	Mohammed V University
Ayoub Ed-Dahmouny	Abdelmalek Essaadi University
Ayoub EL BAKRI	Sidi Mohamed Ben Abdellah University
Ayoub EL OUARDI	Abdelmalek Essaadi University (UAE)
Aziza Naciri	Moulay Ismail University
BACHAR Mohamed	Hassan II University of Casablanca
Badia MOUNIR	Cadi Ayyad University
BADRADDINE AGHOUTANE	Moulay Ismail University (UMI)
Badre BOSSOUFI	Sidi Mohamed Ben Abdellah University (USMBA)
BAGHOUS NOR EL HOUDA	N/A
Bekki issam	Moulay Ismail University
Belatik Assia	Sidi Mohamed Ben Abdellah University
Benchikhi Mohamed	Sultan Moulay Slimane University
BENHALA BACHIR	Sidi Mohamed Ben Abdellah University
benyounes RAILLANI	Mohammed First University
Bhawana Rakshit	Vishwakarma Institute of Technology
Bilal Aghoutane	Ibn Tofail University
Bouchaib CHERRADI	CRMEF Casablanca-Settat
BOUCHAIB IJDAD	Mohammadia School of Engineers (EMI)
Boukili	Sidi Mohammed University
BRAHIM LAMINE	Ibn Zohr University

Chadia EL ASRY	Moulay Ismail University
Chaibi noredline	Sidi Mohamed Ben Abdellah University
CHAIMAA BENYAMANI	Abdelmalek Essaadi University
Charifa HANIN	Institut National des Postes et Télécommunications (INPT)
Chayma Machich	Sidi Mohamed Ben Abdellah University
Chaymae Yahyati	Mohammed Premier University
Chellakhi Abdelkhalek	Sidi Mohamed Ben Abdellah University (USMBA)
DAOUDI Mohamed	Ibn Tofaïl University
DIHAJI NAIMA	Higher National School of Mines
DIOURI OMAR	Cadi Ayyad University
DOHA AKDIM	University of Chouaib Doukkali
DOHA BEN ROUANE	Ibn Tofail University
Doha Bouabdallaoui	Ecole Hassania des Travaux Publics
Dr Abdellatif SLIMANI	Hassan II University
Dr adil echchelh	Ibn Tofail University
Dr Ahmed el hammoumi	Sidi Mohamed Ben Abdellah University (USMBA)
Dr DRISS BELKHIRI	University of Ibn Zohr
Dr Leelavathi Rudraksha	N/A
dr loubna laaouina	Sidi Mohamed Ben Abdellah University
Dr Mourad ZEGRARI	ENSAM Casablanca
Dr Nafidi Youssef	Mohammed V University
Dr Nevin Vunka Jungum	University of Technology Mauritius
Dr Vandapuye Sophia	Hassan II University / IGA
Dr. A. EL MEHDI	Mohammed First University
Dr. Abdelaziz FRI	Sidi Mohamed Ben Abdellah University
Dr. Abdelhadi El Hachmi	Abdelmalek Essaadi University
Dr. Abdellah Ben yahia	Université Moulay Ismail
Dr. ABDELLAH ELABDI	Mohammed First University
Dr. Adil TANNOUCHE	Ibn Tofail University
Dr. aidi sanaa	N/A
Dr. Amal Barkouk	Hassan II University
Dr. Amine Mazouz	Sidi Mohamed Ben Abdellah University (USMBA)
Dr. Anamika Rana	Maharaja Surajmal Institute
Dr. Assia EL MOTAOUKEL	Mohammed V University
Dr. Bachir Elmagroud	Mohammed First University
Dr. Btissam MAJOUT	Sidi Mohamed Ben Abdellah University
Dr. Btissame Janata	Sidi Mohammed Ben Abdellah University
Dr. Chakib Taybi	Mohammed First University
Dr. Cristian Rey C. Seco	Central Luzon State University
Dr. Doha Lefhal	Mohammed V University
Dr. ELHAFIDI Yassine	Hassan II University of Casablanca
Dr. ELJAI Marwa	Sidi Mohamed Ben Abdellah University
Dr. Elmoutaouakil Khalid	Chouaib Doukkali University
Dr. EZARFI NABIL	Sidi Mohamed Ben Abdallah University
Dr. FARISS MOURAD	Abdelmalek Essaadi University

Dr. Fatima Ez-Zahrae Lamzouri	Moulay Ismail University
Dr. hasnae el khoukhi	Sidi Mohamed Ben Abdellah University (USMBA)
Dr. Ibrahim Ouahbi	Mohammed Premier University
Dr. Ikram EL AZAMI	Ibn Tofail University
Dr. IMANE BOUNOUR	Sidi Mohamed Ben Abdellah University (USMBA)
Dr. Jawhar Aiboudi	Moulay Ismail University
Dr. Kamal El-Bakkari	Sidi Mohamed Ben Abdellah University
Dr. Koulouh Fatima	Sidi Mohamed Ben Abdellah University
Dr. lakrit soufian	Mohammed First University
Dr. Lamiae Mrharrab	Sidi Mohamed Ben Abdellah University
Dr. LHIADI Redouane	Mohammed Premier University
Dr. Louragli sabah	Moulay Ismail University
Dr. Manal EL BAZ	Université Ibn Zohr
Dr. Maryam Abata	Sidi Mohamed Ben Abdellah University (USMBA)
Dr. Mohamed EL JBARI	Sidi Mohamed Ben Abdellah University
Dr. Mohamed SAIDI HASSANI ALAOUI	Abdelmalek Essaadi University
Dr. Mohamed TIMMI	Sidi Mohamed Ben Abdellah University
Dr. Mohammed Ibrahim	Sidi Mohamed Ben Abdellah University
Dr. Naoufal EL ALLALI	Mohammed First University
Dr. Nizar LOUSSIF	University of Monastir / University of Sousse
Dr. Ouafae Elalaouy	University of Moulay Ismail
Dr. Rachid LAGTAYI	University Abdelmalek Essaadi
Dr. Rym Nassih	Mohamed V University
Dr. SADEQ Hajar	Mohammed First University
Dr. Souad EL HOUSSAINI	Chouaib Doukkali University
Dr. Syed Attique Shah	Birmingham City University
Dr. Taoufiq ZARRA	National Radio and Television Company
Dr. Viji D	N/A
Dr. Yahya RBAH	Sidi Mohamed Ben Abdellah University
Dr. Younes LAABABID	Sidi Mohamed Ben Abdellah University
Dr. yousef El Mrini	Ibn Tofail University
Dr. Youssef Elguennouni	Moulay Ismaïl University
dr.mzili.ilyass	Chouaib Doukkali University
drissi azdine	Hassan 1st University
Durjoy Saha Palok	R. P. Shaha University
El Arbi ABDELLAOU	N/A
EL HAJOUI ABDELMAJID	Abdelmalek Essaâdi University / University of Tétouan
El hanafi Arjdal	Ibn Zohr University
EL KRIMI YOUSSEF	Sidi Mohamed Ben Abdellah University
EL MALKI SAID	Cadi Ayyad University
El Yazid Radid	University Hassan II of Casablanca
Elhaloumi redouane	Hassan II University of Casablanca
Elkaabi ahmed	School of Information Sciences (ESI)
ELMAHDI EZZOUBAIDI	Hassan II University of Casablanca (UH2C)
ELMAHJOUB BOUFOUNAS	Moulay Ismail University

ELMOUATAMID Abdellatif	N/A
Fadoua Loirdighi	Hassan First University
fadwa ammari	Mohammed V University
Fadwa Baijou	Moulay Ismail University
Fatima amounas	Moulay Ismail University
FATIMA EL KASSIMI	Hassan First University
Fatima KIOUACH	Sidi Mohamed Ben Abdellah University
fiona coutinho	N/A
Fouad El Aychaoui	Sidi Mohamed Ben Abdellah University
Ghita Lazrek	Sidi Mohamed Ben Abdellah University (USMBA)
Ha Viet Thang	FPT University
HALKHAMS IMANE	UPF University
HAMID HASSANI	Sidi Mohamed Ben Abdellah University
HAMZA EL YANBOIY	Ibn Tofail University
HANAA MANSOURI	Sidi Mohamed Ben Abdellah University
Hanae Moussaoui	Sidi Mohamed Ben Abdellah University
Hanane Etabti	Sidi Mohamed Ben Abdellah University
Hari Shankar Biswas	Surendranath College
Harshada Rangnath Mhaske	Pimpri Chinchwad College of Engineering
Hasan Bulut	Ege University
Hassan Ouabi	Hassan II University of Casablanca
Hatim Ameziane	ENSA Khouribga
Hayat OUADI	Mohammed First University
HEMALATHA S	Kongu Engineering College
Hiba Ramadan	Sidi Mohamed Ben Abdellah University (USMBA)
Hicham AMAKDOUF	Sidi Mohamed Ben Abdellah University
Hind MOUHEDDANI	Moulay Ismail University
Ibtissam ESSADIK	Private University of Marrakesh
IBTISSAM LAHJILI	Hassan II University of Casablanca
Ibtissam sajb	ENSAM Casablanca
Ilham sl	Mohammed First University
IMANE DBIBIH	Ibn Zohr University
IMANE DGHOCHI	Ibn Tofail University
Innocent Kadaleka Phiri	N/A
Isfar Hafiz Khan	Independent University, Bangladesh
Ismail Lamaakal	Mohammed I University
ismail mchichou	Sidi Mohamed Ben Abdellah University
JAAFAR AHADAD	Hassan II University of Casablanca
KALYAN MAJI	Haldia Institute of Technology
Kanika Sood	California State University, Fullerton
Kawtar belkadi	Sidi Mohamed Ben Abdellah University
Kenza Sadad lachheb	Sidi Mohamed Ben Abdellah University
Khalid Ait Cheikh	Ibn Zohr University
Khalid azami hassani	Sidi Mohamed Ben Abdellah University (USMBA)
khalid el fahssi	Université Sidi Mohamed Ben Abdellah
KHALID EL FAZAZY	Sidi Mohamed Ben Abdellah University (USMBA)

Khalid El Makkaoui		Mohammed Premier University
Kingkar Prosad Ghosh		R. P. Shaha University
Kodad Mohcine		Mohammed First University
Koularambaye MBAITELBE		Mongo Polytechnic University
Lamia ELJADIRI		Hassan II University
Lemziouka		Sidi Mohamed Ben Abdellah University
LOUARDI Ahmed		Sidi Mohamed Ben Abdellah University
MAATALLAH MARYAM		Mohammed First University
MAHJOUBI Mohamed Amine		Hassan II University of Casablanca
MALAKIT RAM		N/A
Marwane Kzadri		Sidi Mohamed Ben Abdellah University
Masrouf Rachid		Sidi Mohamed Ben Abdellah University
Mehdi BOUTAOUNTE		University of Ibn Zohr
Mekrini zineb		Abdelmalek Essaadi University
Meriyem GHANJAOU		Hassan II University
mhamed sayyouri		Université Sidi Mohamed Ben Abdellah
Mobarek Dib		N/A
Mohamed Amine Ouassil		Hassan II University of Casablanca
Mohamed amine TAHIRI		National School of Applied Sciences
Mohamed BADIY		Mohammed Premier University
Mohamed BENCHEIKH		Hassan II University of Casablanca
Mohamed Bennani		Sidi Mohamed Ben Abdellah University
MOHAMED BOUJDI		Sidi Mohamed Ben Abdellah University
Mohamed Doubiz		Hassan II University
Mohamed ESSAHAFI		ENSMR (École des Mines de Rabat)
Mohamed Ouhssini		Hassan II University
Mohamed Rahioui		Moulay Ismail University (UMI)
MOHAMMED BENABDELLAH		Mohammed Premier University
Mohammed Benbrahim		Sidi Mohamed Ben Abdellah University
Mohammed Chaman		Ibn Tofail University
Mohammed EL GHZAOU		Sidi Mohamed Ben Abdellah University
Mohammed Fattah		Sidi Mohamed Ben Abdellah University
Mohammed Jabbar		Sidi Mohamed Ben Abdellah University
Mohammed JEBBARI		CRMEF Casablanca-Settat
Mohammed KADRI		Sidi Mohamed Ben Abdellah University (USMBA)
MOHAMMED KARROUCHI		Mohammed First University
Mohammed lamrabet		Sidi Mohamed Ben Abdellah University
Mohammed Mghari		Abdelmalek Essaâdi University
MOHAMMED-ALAMINE HOUSSAINI	EL	Chouaib Doukkali University
Moloy Biswas		Southeast University
Monika Sirigiri		MLR Institute of Technology
MOSTAFA BARAH		Mohammadia School of Engineers (EMI)
Mouad BEN-NANA		Sultan Moulay Slimane University
Moulay Youssef Raïâ		Sidi Mohamed Ben Abdellah University
Mounir el khiate		Université Hassan II

Mourad Yessef	Higher School of Technology of Nador
Mr. EL MEHDI IYOUBI	École des Mines de Rabat
Mrani zentar sarra	Cadi Ayyad University
Mrs. Amal Zerouali	N/A
Muhammad Luthfi Hamzah	Universitas Islam Negeri Sultan Syarif Kasim Riau
Mustafa Berke Yelten	Istanbul Technical University
Mustapha Bryk	Istanbul University
Nabil EL AKKAD	Sidi Mohamed Ben Abdellah University
Nabil KANNOUF	ENSA Al Hoceïma
Nasredine Boujmil	Sidi Mohammed Ben Abdellah University
NGUEYA ESSALLAMI	Abdelmalek Essaadi University
Nipun Agarwal	KTH Royal Institute of Technology
Nirmine CHAHBOUNE	Abdelmalek Essaadi University
Nouhaila Drif	Ibn Tofail University
Nouhaila Farajy	Engineering Science
Nour El Houda Nasri	Moulay Ismail University
Noureddine moumkine	Hassan II University
Nusrat Ahamed Kona	R. P. Shaha University
Omar Waleed	University of Fallujah
OTHMANE DAANOUNI	Chouaib Doukkali University
Otmane Houdaif	Chouaib Doukkali University
Otmane YAZIDI ALAOUI	Abdelmalek Essaadi University
Ouakasse Fathia	Hassan First University
Ouazzani Chahidi Laila	Sidi Mohamed Ben Abdellah University
Oumaima Ez-zghouli	Sidi Mohamed Ben Abdellah University
Ouremchi Mounir	Sidi Mohamed Ben Abdellah University (USMBA)
OUSSAMA FADLAOUI	Ibn Tofail University
oussama khouili	Chouaib Doukkali University
oussama	Sidi Mohamed Ben Abdellah University
PHDR. Dr. Ethmane Isselem Ar- bih Mahmoud	ISET Rosso
Pr Ali OUACHA	Mohammed V University
Pr Moad El Kharrim	Abdelmalek Essaadi University
Pr TOUAIRI Souad	Sultan Moulay Slimane University (USMS)
Pr. Bakdid Amar	Mohammed First University
Pr. CHARQI Mohammed	Sidi Mohammed Ben Abdellah University
Pr. Driss YOUSFI	Mohammed First University
Pr. Mouncef Filali-Bouami	Mohammed Premier University
Pr. Nawfal JEBBOR	Moulay Ismail University
Pr. Sanae MAZOUZ	Mohammed First University
Pr. Soumia ZITI	Mohammed V University
Prof Riffi	Université Chouaib Doukkali
Prof. Abdessamad ELBOUSHAKI	Cadi Ayyad University
Prof. Mustapha LAMINE	Hassan II University
prof. ZOUITINE ASMAA	University Chouaïb Doukkali

R.Roselin Kiruba	Vel Tech Rangarajan Dr. Sagunthala R and D Institute of Science and Technology
Rabab RAGHIB	Ibn Zohr University
Rachid Amenzouy	Ibnou Zohr University
Rachid El Alami	Sidi Mohammed Ben Abdellah University
Rachid EL BACHTIRI	Sidi Mohamed Ben Abdellah University (USMBA)
rachid oualaid	Ibnou Zohr University
RACHIDI Achraf	Sultan Moulay Slimane University (USMS)
Radouane ELBAHJAOUI	Sidi Mohamed Ben Abdellah University
RANGUEBAYE Solalta	Institut Nationale des Sciences et Technique d'Abéché (INSTA)
REDA ARRAOUI	Sidi Mohamed Ben Abdellah University
REDOUANE MGHAIOUINI	Ibn Tofail University (UIT)
Rguibi Arjdal	Ibn Zohr University
RIDOUANE OUBAGINE	N/A
Ritam Dutta	Poornima Institute of Engineering & Technology
Rodouan TOUTI	Sidi Mohamed Ben Abdellah University
SAAD-EDDINE CHAFI	Sidi Mohamed Ben Abdellah University
Saba Malik	Nanjing University
Sabri My Abdelouahed	Sidi Mohamed Ben Abdellah University (USMBA)
Safaa Essaid	Sultan Moulay Slimane University
Safaa Ouahid	Universidad de Cordoba
said ECH-CHADI	Cadi Ayyad University
SAID EL KHALDI	Abdelmalek Essaâdi University
Said HRAOUI	Sidi Mohamed Ben Abdellah University
Said khalid	Sidi Mohamed Ben Abdellah University
Salma BOUTERRAKA	Hassan First University
Salma El Aimani	Ibnou Zohr University
Salma EL GOUDE	Ibn Zohr University
Samir BOUZAKRI	Ibn Tofail University
Sara Haddouche	Hassan First University
Sara Sghiouri	University of Hassan II of Casablanca
sara Teidj	Université Moulay Ismail
Sarmad Ahmed Ali	University of Babylon
Sayma Islam	R. P. Shaha University
Sherin Eliyas	Hindustan Institute of Technology & Science
Silviya Kostova	The D.A. Tsenov Academy of Economics
Sina Baya	Université Moulay Ismail
smaa ELKOURCHI	Cadi Ayyad University
Soufiane El Atfa	Hassan First University
Soukaina EL FEROUALI	Cadi Ayyad University
Sourav Mukherjee	University of Michigan
SWATHI BURAGADDA	Lakireddy Balireddy College of Engineering
taoufik chargui	Hassan II University
Tarek Riaji	Chouaib Doukkali University
toukir hossain	R. P. Shaha University

toutou Menne	Ibn Tofail University
Tushar Basavaraj Masur	N/A
Uswa Mahmood	University of Essex
V G JANANI	N/A
WALID EN-NAGHMA	Sidi Mohamed Ben Abdellah University
Wiam Ayrir	Ibn Tofail University
Yahya DBAGHI	Ibn Zohr University
YAHYAOUY	Sidi Mohamed Ben Abdellah University (USMBA)
Yamari Salma	Hassan II University
YASSAMINE EL JAI	Sidi Mohammed Ben Abdellah University
Yassine Aitamar	Mohammed V University
Yattou EL FADILI	Sidi Mohamed Ben Abdellah University
Younes ASIMI	Ibn Zohr University
Younes Errouas	Université Sultan Moulay Slimane
Younes KARFA BEKALI	Mohammed V University
Youness ECHCHADI	Nexus Point Consulting
youness hakam	EMSI Casablanca
Youness K HOURDIFI	Sultan Moulay Slimane University
Yousef Farhaoui	Moulay Ismail University (UMI)
yousra ghazaoui	Sup'management Fès
Youssef ER-RAYS	Abdelmalek Essaadi University
ZAHRA FASKA	Sidi Mohamed Ben Abdellah University
ZAKARIA IZOUAOUEN	Mohammed V University (UM5R)
Zakaria Mighouar	Hassan II University of Casablanca
Zakaria OUAOUJA	Université Moulay Ismaïl / Nantes Université
Zarrouk Tarik	ENSA Oujda
Zineb sqalli houssaini	Sidi Mohamed Ben Abdellah University

2026 International Conference on Circuit, Systems and Communication (ICCSC)

ICCSC2026

July 2-3, 2026 · Faculty of Sciences Dhar El Mahraz -FSDM, Fez, Morocco

All times in GMT+1

Day 1 — Thursday, July 2, 2026

08:15-09:00 Welcoming Participants

Room : <https://meet.google.com/hjj-wmrr-qxa>

09:00-09:10 Official Opening of the Conference

Welcome message from Prof. Mustapha IJJAALI, the President of Sidi Mohamed Ben Abdellah University, Fez, Morocco.

09:11-09:20 Official Opening of the Conference

Welcome message from Prof. Mohammed BELKASMI, the Dean of Faculty of Sciences Dhar El Mahraz, USMBA University, Fez, Morocco

09:21-09:30 Official Opening of the Conference

Welcome message from the General Chair

Prof. Mohammed EL GHZAOUI — Iccsc'26 Chair FSDM, USMBA, Fez, Morocco

09:31-10:15 Plenary Session

Smart Grids and Microgrids: Fundamentals, Real-World Applications, Challenges, and Future Perspectives

Mohamed BARARA

10:16-10:59 Coffee Break

SESSION 1 (Face-to-Face) - IoT Technology and Embedded systems

Room 1 · 11:00-13:20 · Chairs: Mohammed Fattah, Ouremchi Mounir

11:00–11:17	Real Time Fault Diagnosis of Induction Motors Based on Stator Current Analysis and Embedded Machine Learning on a Cost Effective Testing Platform S. Sghoui, H. Sabir, M. Bezza, S. Tantani — <i>Presenter: S. Sghoui</i>
11:17–11:34	Development of a Low-Cost BLE IoT architecture with centralized Data Aggregation for Energy and Environment monitoring in a University Campus A. RHESRI, B. TAHIR, M. BENSALAH, R. BENNANI, Y. BEN MAISSA, A. TAMTAOUI, H. DAHMOUNI — <i>Presenter: A. RHESRI</i>
11:34–11:51	Low-Power and Stable Design of a 180 nm CMOS Two-Stage OTA Using a Single-Objective Water Cycle Optimization Approach A. FATIMA-ZOHRA, M. Ameur, K. Slaoui, R. El Alami — <i>Presenter: A. FATIMA-ZOHRA</i>
11:51–12:08	Real-Time Water Quality Monitoring with IoT: From Sensor Readings to Cloud Storage Y. SALIH, H. Ghennioui, O. Cherrak — <i>Presenter: Y. SALIH</i>
12:08–12:25	PPO-Based Energy-Aware Client Selection for Non-IID Federated Learning in Edge IoT Networks N. MAROUB, H. SILKAN, M. HADNI — <i>Presenter: N. MAROUB</i>
12:25–12:42	Development of an Energy-Efficient PCB for Automated Water Meter Reading S. Issoufou, A. Abdessadek — <i>Presenter: S. Issoufou</i>
12:42–12:59	A Low-Cost Single-Phase Inverter with Real-Time Monitoring: A SPWM-Controlled H-Bridge Approach O. DIOURI, N. ES-SBAI, F. ERRAHIMI — <i>Presenter: O. DIOURI</i>
12:59–13:16	Experimental Evaluation and Dataset Acquisition for Real-Time SLAM in Indoor and Outdoor Environments Using ROS 2 M. Barah, M. Abouzahir — <i>Presenter: M. Barah</i>

SESSION 2 (Face-to-Face) - Renewable energy and Control

11:00-13:16 · Chairs: Chaibi Noredine, CHARQI Mohammed, ELMAHJOUB BOUFONAS

11:00–11:17	Artificial Intelligence Based Wind Turbine Predictive Maintenance: A Review For A Low Emission Energy Future S. Sghoui, M. Bezza, H. Sabir, S. Tantani, A. Tajiri — <i>Presenter: S. Sghoui</i>
11:17–11:34	Altitude-Aware Co-Simulation Framework for Energy Management Optimization of Hydrogen–Electric Hybrid UAV Propulsion Systems I. BOUCHAIB, M. HAMID — <i>Presenter: I. BOUCHAIB</i>
11:34–11:51	Design and techno-economic evaluation of renewable hydrogen production systems: Case of Dakhla D.T. Bouanou, O. Derhy, N. Atmani, A. Hirt — <i>Presenter: D.T. Bouanou</i>
11:51–12:08	Analysis of Overvoltage and Undervoltage Protection Response Under STATCOM Malfunction Scenarios Y. EL MIR, A. Benslimane, J. Bouchnaif — <i>Presenter: Y. EL MIR</i>
12:08–12:25	Integrated Physical Modeling, Real-Time Simulation and Multi-Criteria Optimization of Specific Energy Consumption (SEC) in a Small-Scale Reverse Osmosis Desalination System M. ESSAHAFI — <i>Presenter: M. ESSAHAFI</i>
12:25–12:42	A new technique based on the conjugate gradient method for a simple extraction of the PV generator electrical parameters R. Bendaoud — <i>Presenter: R. Bendaoud</i>
12:42–12:59	Energy Management Strategy for a PV-Battery-Electrolyzer Hybrid System - AGOUMADA Akram A. AGOUMADA, H. MOUNIR — <i>Presenter: A. AGOUMADA</i>
12:59–13:16	Intelligent Hybrid Control of DFIG via ACO for Improved Dynamic Performance under Fluctuating Wind B. BOSSOUFI, F. ECHIHEB, H. TASMANT — <i>Presenter: B. BOSSOUFI</i>

SESSION 3 (Face-to-Face) - Telecommunication, signal processing and Advanced Material Science

11:00–13:20 · Chairs: Abdelhamid BOU-EL-HARMEL, Ouafae Elalaouy

- | | |
|-------------|--|
| 11:00–11:17 | A Programmable CMOS Analog Membership Function Generator Based on Coupled Asymmetric Differential Pairs
M. boussetta, A. Fatima-Zohra, K. Slaoui, R. El Alami — <i>Presenter: M. boussetta</i> |
| 11:17–11:34 | Sustainable Polypropylene Biocomposites Reinforced with Spent Coffee Grounds: Effect of Particle Size and Loading on Mechanical, Physical, and Rheological Properties
K. BOUMANE, M. Karaoui, H. Sami, N. Moustaghfir, M. Alami, M. Assouag — <i>Presenter: K. BOUMANE</i> |
| 11:34–11:51 | Simulation-Based Assessment of Weak vs. Strong Grids Compliance to the EMS Command for GFL Inverters
M.M. Amine, T. Nasser, A. Essagki, T. Bouragba — <i>Presenter: M.M. Amine</i> |
| 11:51–12:08 | Reconfigurable Microstrip Antenna with Switchable Materials for Biomedical Sensing Applications in Millimeter-Wave and Sub-Terahertz Bands
A. Oumarbeh, M. EL Ghzaoui, Y. Ghazaoui, O. Mellouli, H. Touzani — <i>Presenter: A. Oumarbeh</i> |
| 12:08–12:25 | Fidelity-Aware Adaptive HEVC Streaming: Quality Sufficiency for Stable and Resource-Efficient Video Delivery
H. Hardi, I.F.E. Fatani — <i>Presenter: H. Hardi</i> |
| 12:25–12:42 | Replication and Engineering Validation of Physical Layer Security Aware Geographic Routing in VANETs Using OMNeTpp, INET, Veins, and SUMO
E. DRISS, Z. Ouadoudi, B. Mourad — <i>Presenter: E. DRISS</i> |
| 12:42–12:59 | AI-Based Innovations in RF and Antenna Engineering
O. MELLOULI, M. EL GHZAQUI, Y. GHAZAQUI, H. TOUZANI, A. OUMARBEH — <i>Presenter: O. MELLOULI</i> |
| 12:59–13:16 | Reducing PAPR in OFDM systems using AI
T. hajar, M. ELGHZAQUI, Y. Ghazaoui, O. Mellouli, A. Oumarbeh — <i>Presenter: T. hajar</i> |

SESSION 4 (Face-to-Face) - Machine learning application

11:00–13:20 · Chairs: KHALID EL FAZAZY, BADRADDINE AGHOUTANE

- | | |
|-------------|--|
| 11:00–11:17 | Addressing Class Imbalance in Traffic Crash Data: A Comparative Study of Machine Learning Models for Fatality Prediction
S. EL FEROUALI, Z. Elamrani Abou El Assad, A. ABDALI — <i>Presenter: S. EL FEROUALI</i> |
| 11:17–11:34 | CAMS:Context-Aware Multi-Scale Swin Transformer for Person Search using a Re-Identification-Centric approach
B. BAGAYOKO, R. HANNANE, E.O. Ahmed, E.B. Abdessamad — <i>Presenter: B. BAGAYOKO</i> |
| 11:34–11:51 | Deep Learning for SAR-Based Flood Segmentation: A Review of Architectures, Attention Mechanisms, and Multimodal Fusion
M. Kzadri, A. Begdouri, K. El Fazazy, H. Tairi, J. Riffi — <i>Presenter: M. Kzadri</i> |
| 11:51–12:08 | EEG-Based Emotion Recognition System Using Relief-Selected Comprehensive Time-Domain Features and LightGBM.
M. Mr.Anas, A. Said, M. Mustapha, H. Soukaina, B. Omar, A. Fatima — <i>Presenter: M. Mr.Anas</i> |
| 12:08–12:25 | Early Disk Failure Prediction in Large-Scale Data Centers Using a Bi-LSTM Network
Y. Mardan, M.A. Alaoui Mhamdi, M. Allili — <i>Presenter: M.A. Alaoui Mhamdi</i> |
| 12:25–12:42 | Comparative Analysis of Data-Level Imbalance Handling Strategies for Melanoma Detection on HAM10000
S. ELKAH, M.A. Sabri, A. Aarab — <i>Presenter: S. ELKAH</i> |
| 12:42–12:59 | Synthetic Dataset Generation for Fisheye Lens Vibration Compensation
Y. Zardoua — <i>Presenter: Y. Zardoua</i> |
| 12:59–13:16 | Comparative Analysis of Loss-Based Strategies for Class Imbalance in Melanoma Detection on HAM10000
S. ELKAH, M.A. Sabri, A. Aarab — <i>Presenter: S. ELKAH</i> |

SESSION 5 (Face-to-Face) - AI and Applications

11:00–12:59 · Chairs: My Abdelouahed SABRI, Filali Youssef, Mohamed BADIY

11:00–11:17	A Communication-Efficient and Secure Federated Learning Framework over Edge CDN Networks using ZTNA S. MAHMOUDI, M. AMNAI — <i>Presenter: S. MAHMOUDI</i>
11:17–11:34	A Vision-Driven Architecture for Intelligent Proactive Decision-Making in Industry 5.0 Gigafactories S. Ibtissam, N. ALFATHI, A. ELGHADOUALI, A. SEDQUI — <i>Presenter: S. Ibtissam</i>
11:34–11:51	Intelligent Thermal Management Strategies for Electric Vehicle Battery Systems: A Bibliometric Analysis K. Belkadi, K. El Hammoumi, A. Fri, R. El Bachtiri — <i>Presenter: K. Belkadi</i>
11:51–12:08	Graph Design for Weather-Constrained Multi-Airport Delay Forecasting: Comparing Spatial, Functional, and Adaptive Connectivity S. Momtaz, A. Bousselham, M. Mestari — <i>Presenter: S. Momtaz</i>
12:08–12:25	Ethical Challenges of AI in Recruitment: How HR Can Tackle Bias and Promote Fairness: Systematic literature Review D. Khaoula, D. El Maliki — <i>Presenter: D. Khaoula</i>
12:25–12:42	A GRU Model for MOOC Dropout Prediction with an Analysis of Key Features Y. TALAMBOUTI — <i>Presenter: Y. TALAMBOUTI</i>
12:42–12:59	A Dual Uncertainty Framework for Trustworthy Brain Tumor Segmentation on BraTS 2021 M. Kandil, F. Messaoudi — <i>Presenter: M. Kandil</i>

SESSION 6 (Face-to-Face) - NLP, Data Science and emerging technologies

11:00–13:20 · Chairs: Nabil EL AKKAD, Hanae Moussaoui, Adil Jeghal

11:00–11:17	Large language model for suicide ideation detection in social media: A QLoRA-based optimization of Qwen2.5-7B S. EL GOUDE, A. ELLAHYANI, A. HADRI, O. BAMAAROUF — <i>Presenter: S. EL GOUDE</i>
11:17–11:34	Multi-resolution and statistical analyses For Epileptic Seizure Characterization A. Said, O. BAMAAROUF — <i>Presenter: A. Said</i>
11:34–11:51	An Energy- and SLA-Aware Double DQN Scheduling Framework for IoT-Fog-Cloud Systems N. JAWHAR, A. Bouayad, A. Talha — <i>Presenter: N. JAWHAR</i>
11:51–12:08	Deep Learning-Based Image Super-Resolution for Medical Imaging M. BADIY, F. Amounas, C. Hamidi, E.A. Soufian, M. Azrour, S. Bendaoud — <i>Presenter: M. BADIY</i>
12:08–12:25	Video Classification Using Embedding Vectors E.H. AIT EZOUINE, A. EL OIRRAK, E. EL BACHARI — <i>Presenter: E.H. AIT EZOUINE</i>
12:25–12:42	Artificial Intelligence and Its Applications in Auditing: A Systematic Literature Review Using the TCCM Framework K. NABIL, K. JAWAD — <i>Presenter: K. NABIL</i>
12:42–12:59	Enhancement of the NRF-RN-LEACH protocol through secondary cluster leader selection Y. KHARCHACHI, K. HOUSNI — <i>Presenter: Y. KHARCHACHI</i>
12:59–13:16	Bridging Handcrafted and Deep Features: A Lightweight Multimodal Approach for Image Retrieval N. Baarab, B.E.K. Chaouki — <i>Presenter: N. Baarab</i>

SESSION 7 (Online) -AI and Applications

11:00–13:20 · Chairs: YOUNESS KHOURLIFI, El Arbi ABDELLAOUI ALAOUI

11:00–11:17	FedAdapt-EF: An Efficient Federated Learning-Based Approach on Adaptive Compression with Error Feedback for Diabetic Retinopathy A. Roy, I.M. Abir, A. Chowdhury — <i>Presenter: A. Chowdhury</i>
11:17–11:34	Mapping AI-Driven Innovation in Public Sector Management: A Bibliometric Analysis and Research Agenda D.A. Badi, M. Hilmi — <i>Presenter: D.A. Badi</i>
11:34–11:51	Unsupervised Predictive Maintenance: Early Fault Detection in Metro Trains Through Deep Latent Space Anomaly Detection S. chakri, N. Mouhni, F. Ennaama — <i>Presenter: S. chakri</i>
11:51–12:08	A Systematic Review of Metaverse-Conversational AI Integration for Citizen Participation: Gaps and a Pathway for Global South Contexts Z. Berra, S. Arezki, B. Ben Hichou — <i>Presenter: Z. Berra</i>
12:08–12:25	Exploring Research Productivity on AI in Entrepreneurship Education: A Bibliometric Performance Analysis H. BOUTAQQA, S. EL MALIKI — <i>Presenter: H. BOUTAQQA</i>
12:25–12:42	Artificial Intelligence-Based Sports Performance Monitoring: A Bibliometric Analysis of Scopus-Indexed Research M. BOUALI, H. BELHADAOUI, A. ARQANE, H. MEDROMI — <i>Presenter: M. BOUALI</i>
12:42–12:59	Waste Analytics in Manufacturing: An AI-Driven Framework from a Systematic Literature Review Y. BEKKOUR, C. Abderrahim, E. Abdelali — <i>Presenter: Y. BEKKOUR</i>
12:59–13:16	Emotion-Aware Retrieval-Augmented Generation via Affective Knowledge Graphs for Personalised ASD Content Recommendation N. EL AYAT, Y. LEBBADI, C. Ouazri — <i>Presenter: N. EL AYAT</i>

SESSION 8 (Online) - Data sciences and Healthcare sector

11:00–13:20 · Chairs: Amal Barkouk, Sherin Eliyas

11:00–11:17	Crude Oil Reserves Forecasting Using ARIMA, Exponential Smoothing, Facebook Prophet and Ensemble Models S.M. Pacolor, M. RAM — <i>Presenter: M. RAM</i>
11:17–11:34	Supervised Binary Label Imputation via Correlated Features and Logistic Regression S. Mohamed — <i>Presenter: S. Mohamed</i>
11:34–11:51	Brain Hemorrhage Detection and Classification Using AI Techniques and Medical Images E. Salima, E. Israe, Z. Abdelilah, H. Soufiane, C. Bouchaib, Z. Mohammed Hicham — <i>Presenter: C. Bouchaib</i>
11:51–12:08	Resampling Strategies for Imbalanced Adult Autism Screening Data: A Machine Learning Approach H. Lamiae, J. Souhaila, M. sanae — <i>Presenter: H. Lamiae</i>
12:08–12:25	Edge AI and Embedded Systems in the Internet of Medical Things: Architectures, Applications, and Challenges A. El Maliki, M. Chaman, M. El Moufid, H. Medromi — <i>Presenter: A. El Maliki</i>
12:25–12:42	Analysis of the impact of contrast injection methods on radiation dose in chest CT angiography at the Arrazi Hospital of the Mohammed VI University Hospital Center in Marrakech. A. Boulanouar, H. Khajmi, A. Tounsi — <i>Presenter: A. Boulanouar</i>
12:42–12:59	Artificial Intelligence and Adaptive Learning: Current Trends, Challenges, and Prospects in Educational Contexts F. ZNIDFI, A. Jeghal, L. aaouina, H. Tairi — <i>Presenter: F. ZNIDFI</i>
12:59–13:16	AI-Driven Adaptive Learning: A Systematic Review of Architectural Evolution and Pedagogical Alignment A. Abderrahmane, R. Tarek, H. Abdelhadi, E.H. Sanae — <i>Presenter: A. Abderrahmane</i>

SESSION 9 (Online) - Renewable energy and Control

11:00–12:59 · Chairs: Bensalem Boukili, Ouazzani Chahidi Laila

- 11:00–11:17** **Design Optimization of a Dual-Shoe Piezoelectric Energy Harvesting System for Low-Power Wearable Electronics**
J. AHADAD, H. BEHJA, H. LAGHRIDAT, K. BIHICHE, H. MEDROMI — *Presenter: J. AHADAD*
- 11:17–11:34** **Comparative Long-term Outdoor Degradation Study of Monocrystalline Silicon and Thin-Film Photovoltaic Modules in Palaiseau, France**
B. youssef — *Presenter: B. youssef*
- 11:34–11:51** **A Hybrid Analytical–Genetic approach for Accurate Parameter Extraction of Photovoltaic Modules Based on the Two-Diode Model**
K. Boujaghama, N. Khaldi, R. Oualaid, Y. El bid, N. El biaze, R. Markazi — *Presenter: K. Boujaghama*
- 11:51–12:08** **Hydrogen Drones: Towards an Energy Revolution in Unmanned Aerial Aviation**
A. Falahi, H. Mounir — *Presenter: A. Falahi*
- 12:08–12:25** **Numerical Study of Mixed Convection of Nanofluids for Energy Performance Optimization in Marine Heat Exchangers**
Z. ABOU-ELFATH, S. EL-HAMDANI — *Presenter: Z. ABOU-ELFATH*
- 12:25–12:42** **Effect of Wind Speed Estimation Methods on the Performance of Wind Powered Desalination Systems**
N. ESSALLAMI, M. DAOUDI, A. KHOUYA, M. EL MOUEDDEN, I. El Ismaili — *Presenter: N. ESSALLAMI*
- 12:42–12:59** **Influence of Winding Pitch on the Performance of NiZn Ferrite Toroidal Inductors for High-Frequency DC-DC Converters**
R. Solalta, K. MBAITELBE, D.D. Yaya — *Presenter: R. Solalta*

SESSION 10 (Online) - Embedded systems and IoT

11:00–13:20 · Chairs: HAMID HASSANI, BENHALA BACHIR

- 11:00–11:17** **Distributed Intelligence for the Internet of Things Cybersecurity: A Comparative Review of Multi Agent Systems**
R. HDIDOU, M. El Alami — *Presenter: R. HDIDOU*
- 11:17–11:34** **Design and Simulation of a Real-Time IoT-Based Monitoring System for Electric Vehicle Wireless Charging Using CAN and UDP Communication**
E. Sidina, E. Hassan, L. Abdellah, H. Ahmed, H. Anwar, M. Toutou, H. Elyass, B. Ouiam — *Presenter: E. Sidina*
- 11:34–11:51** **A Blockchain Framework for Halal Poultry Traceability and Automated Recall**
M. Mijanur Rahman, M. Tanzid, M. Abdul Oahed, A. Al Mahmud — *Presenter: M. Mijanur Rahman*
- 11:51–12:08** **Large Language Models for IoT Security: A Review and Emerging Trends**
M. Moucharraf, M. Ridouani, F. Salahdine, N. Kaabouch — *Presenter: M. Moucharraf*
- 12:08–12:25** **Feasibility Analysis of Ultra-Low-Power Image Transmission over LoRaWAN for Analog Water Meter Reading: An Energy and Airtime Modeling Study**
Y. CHAKIR, A. AAROUD — *Presenter: Y. CHAKIR*
- 12:25–12:42** **Network Behavior Analysis for Intrusion Detection A Systematic Review**
N. AKHARRAZ — *Presenter: N. AKHARRAZ*
- 12:42–12:59** **Modeling and Simulation of Nonlinear Electrical Signal Propagation via a Generalized Advection–Diffusion Equation Using Laplace Transform Framework**
M. Rahioui, B. El Ansari, E.H. El Kinani, A. Ouhadan — *Presenter: M. Rahioui*
- 12:59–13:16** **Fortifying Resilience in Pharmaceutical Supply Chain through Blockchain Technology: Achieving Complete Visibility, Immutability, and Traceability**
W. Taqui, I. EL HASSANI, A. CHERRAFI — *Presenter: W. Taqui*

SESSION 11 (Online) - Image processing and CNN

11:00–13:16 · Chairs: Mohamed Bennani, Ameer Meryem

11:00–11:17	Design and evaluation of a low-cost robot for agricultural image acquisition for machine learning M. HABIB, S. SEKHRA, Y. LAABABID, A. TANNOUCHE, Y. OUNEJJAR — <i>Presenter: M. HABIB</i>
11:17–11:34	Comparative Evaluation of Monocular Depth Estimation Models for Image Based Vehicle Dent Assessment D. Thimbiripalage, M. Sammani — <i>Presenter: D. Thimbiripalage</i>
11:34–11:51	Deep face matching via sparse embedding of partial face representations R. Hannane, A. Elboushaki, K. Afdel — <i>Presenter: R. Hannane</i>
11:51–12:08	A Review of AI and IoT in Supporting Persons with Disabilities M. KADRI, S. ALAOUI, A. HNINI, I. CHLIOUI — <i>Presenter: M. KADRI</i>
12:08–12:25	Leveraging Artificial Intelligence to Improve Communication and Refusal Management in Pediatric Care: A Study Based on Nursing Students' Experiences A. ENNASSIRI, S. ENNASSIRI, F. El Bakkari, H. Sadiki, S. FADILI — <i>Presenter: A. ENNASSIRI</i>
12:25–12:42	Enhanced Dynamic Cipher Composition with Region Permutation for Secure Image Encryption D.D. SAADIA, G. FAIQ, M. CHERGUI, N. MOUCHFIQ — <i>Presenter: D.D. SAADIA</i>
12:42–12:59	Complexity-Guided Adaptive Encryption for Secure Image Transmission D.D. SAADIA — <i>Presenter: D.D. SAADIA</i>
12:59–13:16	Green-Agentic Routing: A Frugal Multi-Agent Framework for Carbon-Aware LLM Pedagogy K. HIMRI, M. KODAD — <i>Presenter: K. HIMRI</i>

SESSION 12 (Online) - Telecommunication and signal processing

11:00–13:20 · Chairs: ABDELGHANI EL OUGLI, Abdellatif SLIMANI

11:00–11:17	Innovative Flexible SIW Bandpass Filter Based on CSRR Resonators for Biomedical Applications Z. EL FARTAKH, M. EL BAKKALI, H. BAGHOUZ, N. AMAR TOUHAMI — <i>Presenter: M. EL BAKKALI</i>
11:17–11:34	Phonocardiogram Signals Analysis Using Time-Frequency I. jamal, N. Youssef, E. Samir, A. ilyas, B. Nassiri — <i>Presenter: I. jamal</i>
11:34–11:51	Evaluation Study of a Miniaturized mmwave Antenna for 5G Wireless Body Area Networks Applications C. KISSI, M.N. Srifi — <i>Presenter: C. KISSI</i>
11:51–12:08	Numerical study of Wideband Semiconductor Optical Amplifiers for Fiber-to-Fiber Gain Based All Optical Logic Gates L. amina, E. Abdenbi, Z. Abdelkarim, M. Abdelkarim, A.A.O. Kenza, B. Fatima — <i>Presenter: L. amina</i>
12:08–12:25	Impact of Dynamic Obstacles on Physical Layer Security in Vehicular Communications B. Mouhcine — <i>Presenter: B. Mouhcine</i>
12:25–12:42	An Advanced Flexible Antenna Integrating CSRR Resonators for Biomedical Applications H. BAGHOUZ, M. EL BAKKALI, Z. EL FARTAKH, N. AMAR TOUHAMI — <i>Presenter: M. EL BAKKALI</i>
12:42–12:59	Optimizing AI-Driven Adaptive Beamforming for Nanosatellite Communication Using FPGA-Based SDR Architectures B. Driss — <i>Presenter: B. Driss</i>

SESSION 13 (Online) - AI and Applications 2

11:00–13:20 · Chairs: LAMIA EL JADIRI, ZYAD EL KHADIR, ALI YAHYAOUY

11:00–11:17	Evaluating the Effectiveness of CLIP-based Models for Zero/Few-Shot Industrial Anomaly Detection R. Fajr, Y. Zahraoui, T. Chafiq — <i>Presenter: R. Fajr</i>
11:17–11:34	AI-Assisted Reconstruction of Historical Scenes from Images and Textual Descriptions: Toward a Trustworthy Multimodal Framework for Digital Heritage O. kaich, Z. El Fakir, S. El Filali, O. Zahour, E.H. Benlahmar — <i>Presenter: O. kaich</i>
11:34–11:51	Unified STT–TTS Architectures for Real-Time Bidirectional Voice Interaction: A Review, Taxonomy, and Framework Z.E. fakir, O. Kaich, O. Zahour, S. El Filali, E.H. Benlahmar — <i>Presenter: Z.E. fakir</i>
11:51–12:08	The adoption of artificial intelligence in the Moroccan tourism sector: determinants, impacts on performance and customer experience D. Maha, B. Hind — <i>Presenter: D. Maha</i>
12:08–12:25	Artificial Intelligence and Territorial Attractiveness: The Role of Predictive Analytics and Digital Reputation in Enhancing Tourism Destinations in Morocco D. Maha, B. Hind — <i>Presenter: D. Maha</i>
12:25–12:42	An Integrated AI-Driven Intelligent Recommender System for Pedagogical Monitoring and Student Academic Support in Moroccan Higher Education R. Chaibi, O. Stitini — <i>Presenter: R. Chaibi</i>
12:42–12:59	Ethical Considerations and Transparency in Intelligent Agent Operations A. Beshiri — <i>Presenter: A. Beshiri</i>

SESSION 14 (Online) - Renewable energy and Control, Advanced Material Science

11:00–13:20 · Chairs: Ayoub EL BAKRI, Abdelaziz FRI, Lemziouka Houmane

11:00–11:17	Real-Time Global MPPT of PV Systems Under Partial Shading: Experimental Validation A. mohammed, O. Bamaarouf, K. Assalaou, S. Ait Abdelwahab, M. Elyaqouti, E. Arjdal — <i>Presenter: A. mohammed</i>
11:17–11:34	Energy Consumption in Renewable Energy Powered Seawater Desalination: A Scoping Review of Recent Advances F. Loirdighi — <i>Presenter: F. Loirdighi</i>
11:34–11:51	Performance Evaluation of Conventional and Intelligent MPPT Algorithms for Photovoltaic Systems Under Dynamic Irradiance Ramps A. BOUNASR, L. Bounasr, S.E. khamlish — <i>Presenter: A. BOUNASR</i>
11:51–12:08	Nonlinear Control of Fuel Cell for Load Power Tracking and DC Bus Voltage Regulation A. LOUKRISSI, R. LAJOUAD, H. OUABI, A. EL MAGRI — <i>Presenter: A. LOUKRISSI</i>
12:08–12:25	SVF-RLS-Based Online Parameter Identification for Improved SOC Estimation of Lithium-Ion Batteries S. Jarid, M. Das — <i>Presenter: S. Jarid</i>
12:25–12:42	Defect Characterization in Aluminum/Epoxy/Aluminum Trilayer Tubes Using Guided Waves: A Comparative 2D-FFT and Shannon Wavelet Analysis D. azdine, M. Elallami, T. Abdelali — <i>Presenter: D. azdine</i>
12:42–12:59	Evaluating the Environmental Impact of Industrial Seawater Desalination: A Case Study of Safi and Jorf Lasfar Plants in Morocco D. BEN ROUANE, R. Mghaiouini, A. Ait Errouhi — <i>Presenter: D. BEN ROUANE</i>

SESSION 15 (Online) - Machine learning application

11:00–13:20 · Chairs: Mohammed Mghari, Zakaria Mighouar

11:00–11:17	Decoding the Tumor Microenvironment: The Role of Machine Learning in Early Cancer Detection and Diagnostic Precision S. mahaboobbasha, B. biswas — <i>Presenter: S. mahaboobbasha</i>
11:17–11:34	Evaluating the Impact of AI-Driven Public Employment Programs on Youth Labor Market Integration: Evidence from Morocco M. SAID, R. El Amine, I. Aicha, E. Youness — <i>Presenter: M. SAID</i>
11:34–11:51	Smart HVAC Energy Optimisation and AI-Based Prediction for Hybrid Vehicles H. oubnaki, S. Abderahmanne, I. Hiddane, B. Mounir, I. Mounir, A. Farchi — <i>Presenter: H. oubnaki</i>
11:51–12:08	Federated Learning Security in E-Learning: A Clustering-Based Approach to Student Behavior Anomaly Detection and Data Poisoning Mitigation N.E. FEZAZI, M. Daoudi, I. Oumaira — <i>Presenter: N.E. FEZAZI</i>
12:08–12:25	Machine Learning-Based Estimation and Bias Correction of Reference Evapotranspiration Using ERA5-Land over Morocco: A 76-Year Climate Change Analysis N. CHAHBOUNE, S. Amjad — <i>Presenter: N. CHAHBOUNE</i>
12:25–12:42	Hyperparameter Optimization Techniques for Machine Learning : Based Breast Cancer Classification S. Mohamed — <i>Presenter: S. Mohamed</i>
12:42–12:59	Development of Emergency Response System with Pattern-based Decision Support using Machine Learning D.C.R.C. Seco, D.A.Y. Paras — <i>Presenter: D.C.R.C. Seco</i>

Day 2 — Friday, July 3, 2026

SESSION 16 (Online) - Telecommunication and signal processing 2

10:00–12:50 · Chairs: Ali EL ALAMI, Lakrit Soufian

10:00–10:17	Design and Simulation of a Compact UWB Microstrip Antenna with Backed-Antenna for Breast Cancer Detection Y. Damir, C. Kissi, M.N. Srifi — <i>Presenter: Y. Damir</i>
10:17–10:34	Design of a Single-Diode Frequency-Reconfigurable Microstrip Antenna for WiFi and 5G Applications K. sebbahi, S. Ahyoud — <i>Presenter: K. sebbahi</i>
10:34–10:51	Coplanar Gap Plasmon Isolator Used as Microwave Antennas M.D.Y. Ibrahim, A. Ouzer Nabil, I. Habib, A. Mahamoud Ali — <i>Presenter: M.D.Y. Ibrahim</i>
10:51–11:08	A Miniaturized Dual-Port MIMO Antenna for 38GHz 5G mmWave Systems M. Jabbar, A. El Ougli — <i>Presenter: M. Jabbar</i>
11:08–11:25	Performance Analysis of Quantization Aware RIS Assisted Communication Systems with Channel Estimation Errors and Power Allocation Strategies D.M.S.B., D...N.A. Mekala Bavana, D.M.S. Babu, D.D. Nagadevi, M. BAVANA — <i>Presenter: M. BAVANA</i>
11:25–11:42	Cloud-Native Open-Source Orchestration Frameworks for Multi-Domain 5G Networks: ONAP, OSM, and Nephio C. OURHOU, A. BELBACHIR KCHAIRI — <i>Presenter: C. OURHOU</i>
11:42–11:59	Design and Simulation of a Compact Band Stop Filter Utilizing SRR Structure with Microstrip Technology S. Bouziane, L. el Abedllaoui — <i>Presenter: S. Bouziane</i>
11:59–12:16	Design of a Compact Multiband Reconfigurable Antenna with Beam Steering Capability for 5G Millimeter-Wave Telecommunication Systems R. ER-RIDA, H. OUCHANI, C. TAYBI, M.A. MOUTAOUEKKIL, B. ELMAGROUD, A. ZIYYAT — <i>Presenter: C. TAYBI</i>
12:16–12:33	Design and analysis of metamateriel absorber based graphene layer for terahertz applications F. Baijou, O. Elalaouy, M. El Ghzaoui, J. Foshi — <i>Presenter: F. Baijou</i>
12:33–12:50	Comparison of Load Balancing Performance Between Mikrotik ECMP and Ruijie Reye Smart Balancing S.L. Putra, A.A. Yantama, M.L. Hamzah, A. Zamsuri, U. Armalia, A.M. Putri — <i>Presenter: A.A. Yantama</i>

SESSION 17 (Online) - Embedded systems, IoT and AI

10:00–12:50 · Chairs: Rachid El Alami, Mourad Yessef

10:00–10:17	Smart Automatic Power Factor Correction Using Embedded Controller V. Daggupati — <i>Presenter: V. Daggupati</i>
10:17–10:34	A Multi-Stage Hybrid Anomaly Detection Framework for IoT Security Using Machine Learning and Deep Learning B. MOHAMED, A. KHIAT, K. EL GUEMMAT — <i>Presenter: B. MOHAMED</i>
10:34–10:51	End-to-End UAV Flight Control via Transformer-Based Cross-Attention Sensor Harmonization S. ECH-CHADI, M.A. ZAID, Y. ECHCHADI, B. AGHOUTANE — <i>Presenter: S. ECH-CHADI</i>
10:51–11:08	Port Readiness for Automated Guided Vehicle Deployment: A TOE Based Systematic Literature Review S. MARBOU, A. Benabdelhafid — <i>Presenter: S. MARBOU</i>
11:08–11:25	Design and Performance Evaluation of an HLS-Based CNN Accelerator on PYNQ-Z2 M. BOUKILI, N. JEBBOR, K. ERRAJRAJI — <i>Presenter: M. BOUKILI</i>
11:25–11:42	Artificial Intelligence in Power IGBT Module Reliability: A Comprehensive Bibliometric and Interpretative Review D. Imane, L. Badredine, L. Sara, E. Rachid, M. Mounia — <i>Presenter: D. Imane</i>
11:42–11:59	A Deep Learning and Edge AI-Based Embedded Systems for Automotive Applications in towards Internet of Autonomous Vehicles (IoAV) M. Chaman, A. El Maliki, M. Benaly, Z. Sadoune, H. Dahou, A. Hadjoudja — <i>Presenter: M. Chaman</i>
11:59–12:16	AI-Driven Automotive LiDAR Perception in Fog: A Systematic Review from Optical Degradation to Robust Object Detection Y. EL HADDIOUI, K. Bensassi, A. Kharbouche, Y. Zouine, N. Alem, Z. Madini — <i>Presenter: Y. EL HADDIOUI</i>
12:16–12:33	A Smart Internet of Energy Approach to Solar-Powered Wireless Charging: From Hardware Prototyping to Cloud-Based Energy Management O. BRIA, E. HAFIDI, A. LASSIOUI, H. EL FADIL, A. ELOUADI, A. HASNI, M. CHIHEB, M. EL ANCARY — <i>Presenter: O. BRIA</i>
12:33–12:50	Design, Simulation, and IoE-Enabled Real-Time Monitoring Validation for PV-Powered WPT Charging E. HAFIDI, O. BRIA, A. LASSIOUI, H. EL FADIL, A. ELOUADI, A. HASNI, S. EL JEILANI, A. HAMED — <i>Presenter: E. HAFIDI</i>

SESSION 18 (Online) - Renewable energy

10:00–12:30 · Chairs: SAID EL KHALDI, Chellakhi Abdelkhalek

10:00–10:17	Enhancing Solar PV Plant Performance through Artificial Intelligence: A Bibliometric Analysis Using VOSviewer W. sfar, L. AMHAIMAR, A. KHALIDI, B. TALBI — <i>Presenter: W. sfar</i>
10:17–10:34	Predicting PV Pumping Flow with Random Forest: Experimental Validation and Estimation of Float Switch Water Losses B. El Fahmi, I. Choulli, D. Saadaoui, K. Assalaou, I. Abazine, L. El Fahmi — <i>Presenter: B. El Fahmi</i>
10:34–10:51	A Comparative Study of Conventional MPPT vs. Hybrid FLC-P&O for Energy Extraction in Standalone DC Microgrids M. BELQASMI, M. Zerouali, A. El Ougli, B. Tidhaf — <i>Presenter: M. BELQASMI</i>
10:51–11:08	Offshore Wind Turbine Fatigue: A Bibliometric Analysis (2000–2024) M. Brok, A. Arbaoui, M.L. Barkati, A. Amour — <i>Presenter: M. Brok</i>
11:08–11:25	Integrated Predictive Maintenance and Energy Management in Hybrid PV Microgrids Using Reinforcement Learning A. ECH-CHARQAOUY, S.S. Ech-Charqaouy, A. Boulezhar, N. ECH-CHARQAOUY, R. Mihramane — <i>Presenter: A. ECH-CHARQAOUY</i>
11:25–11:42	Optimization and Automation of Industrial Air Compressors with PID Regulation and Photovoltaic Power Supply W. karimou, A. EL Baz, N. EL Akchioui — <i>Presenter: W. karimou</i>
11:42–11:59	Performance of Inductive Charging Systems for Electric Vehicles at Resonance Frequency W. SALAHEDDINE, E. Khalid, D. Imane — <i>Presenter: W. SALAHEDDINE</i>
11:59–12:16	Identification of photovoltaic cells/modules parameters using Meta-heuristic approche : Triangulation Topology Aggregation Optimizer B. Youssouf, B. YDIR, I. Abazine, E.H. Arjdal, M. Elyaqouti, D. Ben Hmamou — <i>Presenter: B. Youssouf</i>

SESSION 19 (Online) - Control

10:00–12:30 · Chairs: Btissam MAJOUT, safaa essaid

10:00–10:17	Processor in the Loop Implementation of a Robust Super Twisting Sliding Mode Controller for BLDC Drive Systems A. HASNI, H. EL FADIL, A. LASSIOUI, Y. EL ASRI, M. EL ANCARY, O. BRIA, E. HAFIDI, T. MENNE — <i>Presenter: A. HASNI</i>
10:17–10:34	Data-Driven Smart Broiler House in Morocco: Thermal Diagnosis, TRNSYS-Based Microclimate Modelling and Random Forest Predictive Control (Tiflet Case Study) J. Chtioui, R. Adjar, N. Elghardouf, F. Rerhrhaye, A. Elakkary, H. Sarghini, I. Lahlouh, N. Sefiani — <i>Presenter: J. Chtioui</i>
10:34–10:51	Multi-Objective Model Predictive Energy Management for Fuel Cell/Supercapacitor Hybrid Systems with DC Bus Stability Enhancement T. Menne, H. El Fadil, A. Lassioui, S. Eljeilani, A. hasni, A. Hamed — <i>Presenter: T. Menne</i>
10:51–11:08	A Three-Phase Resonant Charger with Secondary-Side Control for High-Power Multi-Vehicle Wireless EV Charging M. El Ancary, A. Lassioui, H. El Fadil, Y. El Asri, A. Hasni, M. Chiheb, H. Abbade, O. Bria — <i>Presenter: M. El Ancary</i>
11:08–11:25	Fault-Tolerant and Resilient Control of isolated Microgrids: A Review Toward SCADA–Edge Enabled Architectures O. ANIBER, M.H. ZAGGAF, A. MANSOURI — <i>Presenter: O. ANIBER</i>
11:25–11:42	Reinforcement Learning for Optimal Drift Rate Control in Brownian Processing Systems Y. Ikriichi, A. Ben Tahar — <i>Presenter: Y. Ikriichi</i>

SESSION 20 (Online) - AI and Applications 3

10:00–12:30 · Chairs: Mohammed Moutaib, Redouane Lhiadi

10:00–10:17	Intelligent Scoring Engine for Cyber Fraud Detection in Digitalized KYC Processes Based on OSINT M.A. CHOURAK, I. AOUATTAH, Y. ZAOUÏ SEGHROUCHENI, D. RIANE, S. ZITI — <i>Presenter: M.A. CHOURAK</i>
10:17–10:34	Intelligent Tiering of Electronic Health Records in Hybrid HBase-Redis Storage Using a Multi-Agent system A. SGHIR — <i>Presenter: A. SGHIR</i>
10:34–10:51	Generative AI and Academic Integrity in Programming Education: A Bibliometric Analysis of Research Trends M. BOUTAIB, A. Moumen, H. Hanine, N. Farajy — <i>Presenter: M. BOUTAIB</i>
10:51–11:08	An AI-Driven Adaptive Cybersecurity Architecture for Governed Networked Systems in Developing Countries D.R. DEMBELE, I. DIOP, D. FAYE — <i>Presenter: D.R. DEMBELE</i>
11:08–11:25	Multi-Agent Communication and Decision-Making in a Human-in-the-Loop Distributed System. Z. rida, H. BOUKACHOUR, M. ENNAJI, M. MACHKOUR — <i>Presenter: Z. rida</i>
11:25–11:42	Intelligent Full-Stack Application Deployment: A Multi-Agent AI System for Automated Containerization and Kubernetes Orchestration S. Ait Moulay, M. AMEKSA, Z. Elamrani Abou El Assad — <i>Presenter: S. Ait Moulay</i>
11:42–11:59	Data-Driven Customer Service: How AI Chatbot Interactivity and Service Quality Drive Banking Satisfaction F.Z. Hadran, M. Azdod, O. Boubker — <i>Presenter: O. Boubker</i>
11:59–12:16	Prediction of type 1 diabetes risk in children from 0 to 12 years old using a calibrated probabilistic model with family-aware validation M.N.A. Saad, M.A. Ibrahim Doutoum, M. Choroma, M. Issa Hassan — <i>Presenter: M.N.A. Saad</i>

SESSION 21 (Online) - Renewable energy 4

10:00–11:59 · Chairs: Ifakkou Elismaili, ANAS BOUAOUDA

- | | |
|-------------|--|
| 10:00–10:17 | Enhancing Solar Power Forecasting Accuracy through Machine Learning Architectures
S. Fennane, H. Kacimi, H. Mabchour, F. ALtalqi, A. Echchelh — <i>Presenter: S. Fennane</i> |
| 10:17–10:34 | A Review of The Internet of Energy (IoE): Evolution, Technologies, Challenges and Future Trends
O. BRIA, E. HAFIDI, A. LASSIOUI, H. EL FADIL, A. HASNI, H. ABBADE, S.E. EL MESLOUHI — <i>Presenter: O. BRIA</i> |
| 10:34–10:51 | Enhanced Stability of PV Boost Converters Using IP-PI Dual-Loop Control Strategy under Dynamic Conditions
H. MOUHEDDANI, L. ABAALI, J. FOSHI — <i>Presenter: H. MOUHEDDANI</i> |
| 10:51–11:08 | State of Charge Estimation for Lithium-Ion Batteries Using a Single Particle Model and Finite Difference Method
D.E. Yassine, K. EL MAJDOUB, M. KHAFALLAH — <i>Presenter: D.E. Yassine</i> |
| 11:08–11:25 | Optimal design of PID controller for poultry house system using Butterfly Optimization Algorithm
N. Elghardouf, F. Rerhrhaye, J. Chtioui, R. Adjar, A. Elakkary, N. Sefiani — <i>Presenter: N. Elghardouf</i> |
| 11:25–11:42 | Wireless Charging Systems for EVs: A Comprehensive Review of Systems and Control Strategies
D. Boutrid, T. NASSER, A. ESSADKI, A. LASSIOUI, A. EL HAFIDY, T. BOUANOU — <i>Presenter: D. Boutrid</i> |
| 11:42–11:59 | Enhanced Battery Thermal Management Using Multi-Channel Heat Sinks with Curved Cross-Sectional Profiles
M. SAKKAY, H. EL AQID, I. EL GHANDOURI, A. EI MAAKOUL, S. SAADEDDINE, M. MEZIANE — <i>Presenter: M. SAKKAY</i> |

SESSION 22 (Online) - Machine learning application

10:00–12:30 · Chairs: Malakit Ram, Redouane Lhiadi

- | | |
|-------------|---|
| 10:00–10:17 | Spatial Modeling of Photovoltaic Technical Power Potential in Morocco Using GIS and Unsupervised Machine Learning Techniques
M. Chaibi, T. El-Arouch, L. Tarik — <i>Presenter: M. Chaibi</i> |
| 10:17–10:34 | What Drives Market Performance? A Case Study from the Moroccan Market Using Machine Learning and Explainable AI
k. hamza, b. achraf, B. Khalid — <i>Presenter: k. hamza</i> |
| 10:34–10:51 | Curriculum-Guided Feedback Validation Learning for Robust Neural Network Training
B. Chafik, F. Hajar, M. Adnane Mohamed, T. Hamid, R. Jamal — <i>Presenter: B. Chafik</i> |
| 10:51–11:08 | Educational Data Mining and Machine Learning for Academic Performance Prediction: A Systematic Review and Critical Synthesis
A. Harif, M.A. KASSIMI, M. ASSANNAM — <i>Presenter: A. Harif</i> |
| 11:08–11:25 | Enhancing the state of charge Estimation algorithm based on a recurrent neural network (RNN)
K. AKAABOUR, S. Garmoum, M. Elmahri, T. Jarou — <i>Presenter: K. AKAABOUR</i> |
| 11:25–11:42 | Early Detection and Prediction of Chronic Kidney Disease: A Novel deep Approach
m. Rabie, E. Abdessama, C. Abdelhaq, E. Abderrahmane — <i>Presenter: m. Rabie</i> |
| 11:42–11:59 | Benchmarking the Robustness of Wearable HAR Pipelines under Graded Sensor Noise and Missing-Data Corruption
K. essafi, L. MOUSSAID — <i>Presenter: K. essafi</i> |
| 11:59–12:16 | Interpretable Ensemble Learning for Early Autism Screening Using Infant Cry Features
V. Tsakalidou, I. Tsimperidis, E. Vrochidou, G. Papakostas — <i>Presenter: G. Papakostas</i> |

SESSION 23 (Online) - AI and Applications 4

10:00–12:30 · Chairs: EL HAJOUI ABDELMAJID, NOUHAILA FARAJY

- | | |
|-------------|--|
| 10:00–10:17 | A Systematic Review and Comparative Analysis of AI-Generated Text Detection in Education
H. DAOUDI, M. RIAD, I. SALHI, S. GOURAGUINE, M. QBADOU — <i>Presenter: H. DAOUDI</i> |
| 10:17–10:34 | Machine Learning and Deep Learning Approaches for Leak Zone Classification in Pressurized Pipelines
J. Oumaima, M. Zakaria, Z. Laidi — <i>Presenter: J. Oumaima</i> |
| 10:34–10:51 | Agentic Intelligent Systems for Personalized Adaptive Learning: A Systematic Review
D.R. Achengli, S. GOURAGUINE, I. SALHI, M. RIAD, M. QBADOU — <i>Presenter: D.R. Achengli</i> |
| 10:51–11:08 | How frugal artificial intelligence drives sustainability and optimization in African food supply chains
I. Sidki — <i>Presenter: I. Sidki</i> |
| 11:08–11:25 | Mapping the Landscape of Reinforcement Learning in Unity
M. Tsaousidis, A. Moutafidou, E. Vrochidou, T. Kalampokas, G. Papakostas — <i>Presenter: E. Vrochidou</i> |
| 11:25–11:42 | Behaviourally Informed Adversarial Prompting for Evaluating Emergent Risk Behaviours in Foundation Models
D.C. Uwasomba, D.N. Nnamoko, P.I. Korkontzelos — <i>Presenter: D.C. Uwasomba</i> |
| 11:42–11:59 | Deterministic and Trustworthy LLM-Driven Semantic Knowledge Graph Construction
D.C. Uwasomba, D.N. Nnamoko, P.I. Korkontzelos — <i>Presenter: D.C. Uwasomba</i> |
| 11:59–12:16 | Adaptive Ambiguity Reduction in Crop Disease Diagnosis via an LLM Agent
K. GHOMMAT, O. Bourkoukou, A. Ouaraab — <i>Presenter: K. GHOMMAT</i> |

SESSION 24 (Online) - Healthcare sector

10:00–12:16 · Chairs: Youssef ER RAYS, LOUBNA LAAQUINA

- | | |
|-------------|--|
| 10:00–10:17 | A Chaos-Enhanced VAE-GAN for Semi-Blind and Imperceptible Medical Image Watermarking
K. DINIA, C. KISSI, T. BOUJHA — <i>Presenter: K. DINIA</i> |
| 10:17–10:34 | RHYTHMIQ: A Low-Cost Portable ECG Monitoring System with On-Device Multimodal Feedback and Clinical Validation
E.A.F. Zaid — <i>Presenter: E.A.F. Zaid</i> |
| 10:34–10:51 | Radiation Dose Variability in Temporal Bone CT: A Prospective Multicenter Comparison Across Moroccan Centers
Z. SAGA, M. Touil, A. Rezzouk, A. Rahmouni — <i>Presenter: Z. SAGA</i> |
| 10:51–11:08 | Enhanced Dual-Eye Multi-Modal Ocular Disease Detection and Clinical Report Generation
O. DAANOUNI, S. Shawki, M.A. Ouassil, Z. Alouani, O. El Gannour, B. Cherradi — <i>Presenter: O. DAANOUNI</i> |
| 11:08–11:25 | OmniSEG: A Multi-Model Ensemble Framework for Retinal Layer Segmentation in OCT Images
A. IHIYA, F. Yakoubi, B. Ouazzani Chahdi, S. DOUZI — <i>Presenter: A. IHIYA</i> |
| 11:25–11:42 | Explainable Vision-Language Feature Learning for Autism Spectrum Disorder Screening
A. ELASRI, K. BENJILALI, H. CHERRADI, S. HAMIDA, B. CHERRADI, O. BOUATTANE — <i>Presenter: A. ELASRI</i> |
| 11:42–11:59 | Evaluating the Impact of Data Augmentation Techniques on Breast Ultrasound Image Classification Using Pretrained CNN Models
M. ZOURHRI, A. EL-IBRAHIMI, D. EL KALEF, S. LAGHMATI, B. CHERRADI, M. EL KHAILI — <i>Presenter: M. ZOURHRI</i> |
| 11:59–12:16 | Artificial Intelligence Adoption in Private Healthcare: A Qualitative Study of Moroccan Private Clinics
D. BELGHACHI, L.H. LAGDIM SOUSSI — <i>Presenter: D. BELGHACHI</i> |

SESSION 25 (Online) - Machine learning application 3

10:00–12:16 · Chairs: MOHAMED BACHAR, MAHJOUBI Mohamed Amine

10:00–10:17	Logarithmic Feature Transformation and Machine Learning algorithms for EEG-Based Imagined Speech Classification. A. Fatima, A. Said, M. Zakaria, M. Anas, B. Omar, M. Mustapha — <i>Presenter: A. Fatima</i>
10:17–10:34	Modelling Land Surface Temperature Across Morocco's Complete Climatic Gradient: A National LST Equation Linking Topography, Spectral Indices, and Thermal Dynamics A. RACHIDI, S. HAYANI MOUNIR — <i>Presenter: A. RACHIDI</i>
10:34–10:51	Thermal Mapping of the Surface Urban Heat Island in Marrakesh: A Landsat 8, XGBoost, and SHAP Approach under Semi-Arid Climate Conditions A. RACHIDI, S. HAYANI MOUNIR — <i>Presenter: A. RACHIDI</i>
10:51–11:08	Predicting Student Academic Performance with Machine Learning: Implications for AI-Driven Graduate Employability Y. EZZAAIME, A. RAIGAT, S. HADDOUCHE, E.A. ROUAGA, S. MAIZZOU — <i>Presenter: Y. EZZAAIME</i>
11:08–11:25	Explainable AI-Driven Diagnosis of Alzheimer's Disease using SMOTEENN and SHAP Interpretability M.M. Rahman, M. Hossain, M. Biswas, R. Ur Rahman, P. Pratim Saha — <i>Presenter: M.M. Rahman</i>
11:25–11:42	An Optimized Machine Learning Model for Anemia Classification: Integrating SHAP-based Interpretability M. Mijanur Rahman, M. Biswas, M. Hossain, R. Ur Rahman, P. Pratim Saha — <i>Presenter: M. Mijanur Rahman</i>
11:42–11:59	Thyroid Disease Detection: A Data Leakage-Resistant Explainable AI Framework for Multi-Class Classification Using Clinical Features M.M. Rahman, R. Ur Rahman, M. Hossain, M. Biswas, I. Jahan, M.F. Alam — <i>Presenter: M.M. Rahman</i>
11:59–12:16	HyperBench-7: A Multimodal Metadata for Hyperparameter Selection, Model Benchmarking, and AutoML Agent Evaluation D.S. Palok, N.A. Kona, H.M. Shibu, S.K. Paul, A. Singha, K.P. Ghosh — <i>Presenter: D.S. Palok</i>

SESSION 26 (Online) - AI and Applications 5

10:00–12:16 · Chairs: Moad El kharrim, ELMAHDI EZZOUBAIDI

10:00–10:17	Performance Analysis of Transformer-Based Models for E-Commerce Recommendation Reviews F. Mekkaoui-Alaoui, M. Mghari — <i>Presenter: F. Mekkaoui-Alaoui</i>
10:17–10:34	Breast Cancer Detection Methods: Current Challenges and the Emerging Role of Artificial Intelligence: A Review M. Kamel, D.Z. Chiba, D.S. El Moumen, M.S. Ennaqui — <i>Presenter: M. Kamel</i>
10:34–10:51	Deep Learning Architectures for Automated Bone Fracture Detection: A Technical Survey of CNNs vs. Vision Transformers and Explainability (XAI) S. ENNAQUI, Z. Chiba, K. Moussaid, A. Kamel — <i>Presenter: S. ENNAQUI</i>
10:51–11:08	Multi-Horizon and Multi-Depth Soil Moisture Forecasting Using LSTM and XGBoost for Smart Irrigation D.F. Kardous, D.A. Benassi, P.K. Grayaa — <i>Presenter: D.F. Kardous</i>
11:08–11:25	FairRankAudit: A Counterfactual Audit Protocol for Fairness and Evidence-Grounded Explanations in Candidate Ranking B. Khadija, C. Hanae, E. Asmaa, H. Soufiane, C. Bouchaib, B. Omar — <i>Presenter: C. Bouchaib</i>
11:25–11:42	Do Evaluation Metrics Agree? An Analysis of Metric Reliability in Text-to-Video Generation S. Hannouni, C. LAMHARMECH, O. Belarache, E.H. Benlahmar, S. El Filali — <i>Presenter: S. Hannouni</i>
11:42–11:59	Frugal Approach for Pediatric Speech Learning: A Lightweight and Computationally Efficient Speech Classification System C. HAJAR — <i>Presenter: C. HAJAR</i>
11:59–12:16	Fairness-Aware Feedback Score (FAFS): A Composite Metric for Auditing LLM-Generated Employee Performance Reviews O. BELARACHE, F.Z. ABBOUR, S. HANNOUNI, S. OUNACER, M. AZZOUAZI — <i>Presenter: O. BELARACHE</i>

SESSION 27 (Online) - Convolutional Neural Networks and Image processing

10:00–12:33 · Chairs: Khouili Oussama, Khalid EL MOUTAOUAKIL

10:00–10:17	Breast Cancer Classification from Infrared Thermograms Using MobileViT and Transfer Learning G. Matloub, S. Douzi, K. Douzi, O. Sebban — <i>Presenter: G. Matloub</i>
10:17–10:34	Enhancing Landslide Detection with U-Net and Focal Loss Benchmarking Single Models, Ensembles, and Knowledge Distillation on Landslide4Sense Dataset J.A. TAGUD — <i>Presenter: J.A. TAGUD</i>
10:34–10:51	A Systematic Survey of AI-Based Digital Watermarking: Physical against JPEG-Robust Approaches M. AIT AYAD, C. Kissi, T. BOUJIHA — <i>Presenter: M. AIT AYAD</i>
10:51–11:08	A Comparative Study of Voting Ensembles and MoE-Transformer for Social Media Hate Speech Detection R. Rachidi, M.A. OUASSIL, S. SALEH, M. ERRAMI, B. CHERRADI, H. SILKAN — <i>Presenter: R. Rachidi</i>
11:08–11:25	Real-Time Predictive Energy Management Using Power Electronic Interfaces in AC Microgrids V. Daggupati — <i>Presenter: V. Daggupati</i>
11:25–11:42	Hybrid TFT-Based Deep Learning Framework for Robust Power System State Monitoring V. Daggupati — <i>Presenter: V. Daggupati</i>
11:42–11:59	Explainable Deep Learning Framework for Intelligent Power Electronic Control in Smart Grids V. Daggupati — <i>Presenter: V. Daggupati</i>
11:59–12:16	Development of an Explainable AI Framework for Early Prediction of Animal Hereditary Diseases Using Genomic Biomarkers. A.M. Mohammed, Ö. KARAL, L.O. Faraj Ben Dalla, A. Değirmenci, E. Eljali, T.M. Alarbi Ahmad — <i>Presenter: A.M. Mohammed</i>
12:16–12:33	An Explainable Transfer Learning Framework for Fine-Grained Classification of Indigenous Chili Varieties Using Pretrained CNN Architectures M.M. Rahman, K. Nakibul Akhter, U. Kulsum Mohona, K. Kobra Sonia — <i>Presenter: M.M. Rahman</i>

SESSION 28 (Online) - Data sciences and AI

10:01–12:17 · Chairs: IBTISSAM ESSADIK, NOUHAILA FARAJY

10:01–10:18	Governing University Data as a Strategic Asset An Integrative Literature Review and Management Control Framework for the Data-Rich University R. BEN HMIDOU, A. MARGHICH, A. EDDAKIR — <i>Presenter: R. BEN HMIDOU</i>
10:18–10:35	Enhancing Tesla Stock Prediction via Genetic Algorithm Optimization of ARIMAX, XGBoost, and GRU Models I. LAHJILI — <i>Presenter: I. LAHJILI</i>
10:35–10:52	The Rise of Explainable AI in Education: A Bibliometric Analysis of Research Trends M. Alhiane, Y. Nafidi — <i>Presenter: M. Alhiane</i>
10:52–11:09	Beyond the Score A Neuro-Symbolic Framework for Explainable Automated Grading in Higher Education K. Slime, H. Zaidani, M. Slime — <i>Presenter: K. Slime</i>
11:09–11:26	Decentralized Causal Agents with Sheaf-Theoretic Conflict Resolution for Glucose Forecasting in Type 1 Diabetes F. CHARCHAoui, A. EL Ouardi, O. ABDOUN — <i>Presenter: F. CHARCHAoui</i>
11:26–11:43	NLP-IoTLogSec: Natural Language Processing for Cybersecurity Threat Detection in IoT System Log E. adil — <i>Presenter: E. adil</i>
11:43–12:00	A Strategic Framework for AI Integration in Cybersecurity Governance: The Moroccan Case Z. Amegouz, Z. Dardouri, L. Oughdir — <i>Presenter: Z. Amegouz</i>
12:00–12:17	Cost-Aware Fraud Detection Under Chronological Evaluation: An Extended Benchmark With CatBoost, TabNet, and LightGBM A. ELBADRAoui, Y. Mouhssine, A. Elalaoui, S. Ouatik El Alaoui — <i>Presenter: A. ELBADRAoui</i>

SESSION 29 (Online) - IoT Technology and Embedded systems

10:01–12:00 · Chairs: Souad TOUAIRI, Nabil Kannouf

10:01–10:18	Designing an RFID-Driven eLogbook for Intelligent Facility Access and Monitoring J.B. Acuna, J.R. Imbag, L. Precilla, K.A. Botangen, J. Fernando, A. Gamilla — <i>Presenter: K.A. Botangen</i>
10:18–10:35	From IoT Anomaly Detection to Operational Action: An IF–THEN Decision Framework for Cold Chain Resilience. W. EL Hail, C. EL HAIL, M. EL HAMZAOU — <i>Presenter: W. EL Hail</i>
10:35–10:52	A Tightly Coupled Resource-Efficient IME Accelerator for VVC on RISC-V SoC T. Dang, N. Nguyen, T. Tran, T. Cao, C. Pham, H. Huynh — <i>Presenter: T. Dang</i>
10:52–11:09	A Comparative Analysis of Hybrid Data-Driven and Vision-Based Methods for Intelligent Thermal Runaway Detection in Li-ion Batteries I. HIDDANE, H. Oubnaki, B. MOUNIR, T. SAIDI, I. MOUNIR, L. ELMAZOUZI — <i>Presenter: I. HIDDANE</i>
11:09–11:26	Enhancing Traffic Signal Control via Lightweight Reward Function Design in Multi- Agent Reinforcement Learning N. Faqir, J. Boumhidi, M.T. Bennani, B. Boussoufi, M. El Far, K. El Fahssi — <i>Presenter: N. Faqir</i>
11:26–11:43	Transformer-Based Continuous Authentication for Secure E-Learning: A Conceptual Framework Integrating Keystroke Dynamics and Blockchain A. AouladAli, S. Alaoui, A. Hnini — <i>Presenter: A. AouladAli</i>
11:43–12:00	An RFID Integrated Autonomous Robotic Micro-Dosing System for Precision Agricultural using ROS-Based Control and Gazebo Simulation B. SAINI, B. Biswas, A. Gupta — <i>Presenter: B. SAINI</i>

SESSION 30 (Online) - Artificial Intelligence and computer vision

10:04–12:03 · Chairs: Hatim Ameziane, Amal ZOUHRI, EL GHZAOU

10:04–10:21	Reassessing AI Sustainability: Environmental Costs and Social Risks E.I. IFAKKOU — <i>Presenter: E.I. IFAKKOU</i>
10:21–10:38	Artificial Intelligence and Consumer Behavior in Educational Services: Impact on the Academic and Professional Development of USMBA Students K. Azami hassani, O. El kahlaoui — <i>Presenter: O. El kahlaoui</i>
10:38–10:55	Deep Multi-Task Learning for AQI Classification and PM2.5 Estimation from Images D. AKDIM, K. MARZAGUI, T. MZILI, H. SILKAN — <i>Presenter: D. AKDIM</i>
10:55–11:12	An Adaptive Cold-Aware Recommendation System for Sparse E-Commerce Data A. BOUAMIR, H.D.M. Assoumana Souley, Y. Afoudi — <i>Presenter: H.D.M. Assoumana Souley</i>
11:12–11:29	An overview of Supervised Deep Learning Methods for Medical Image Segmentation S. AZOUGAGH, A. BADRI, I. EL MOURABIT — <i>Presenter: S. AZOUGAGH</i>
11:29–11:46	A Comprehensive Review of Occupancy Prediction via Machine Learning and Deep Learning for Energy Optimization in Commercial Buildings N. Drif, W. Ayrir, D. Benhaddou — <i>Presenter: N. Drif</i>
11:46–12:03	A Comparative Study of Machine Learning Models for Stability Prediction in Moroccan Power Grids S. ESSAID, L. LAZRAK — <i>Presenter: S. ESSAID</i>

emerging technology

16:00–16:34

16:00–16:17	Toward the Development of Energy-Efficient Machine Learning Models for the Sustainable Verification of Embedded System Components L. ELJADIRI, I. ASSAYAD, T. NAHHAL — <i>Presenter: L. ELJADIRI</i>
16:17–16:34	A TSMC 45 nm CMOS Voltage-Controlled Oscillator M. Ouremchi, A. Bou-El-Harmel, A. El Makhloufi, J. Belkadid — <i>Presenter: M. Ouremchi</i>

Note: Dear Author, Please note that any updates or changes to the conference will be posted on the agenda page. We kindly ask you to check this page regularly