

## **TENTATIVE PROGRAM (as of 18/11/2025)**

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# **Tentative Program**

(as of 18/11/2025)

P: Plenary / K: Keynote / I: Invited / O: Oral

#### MONDAY NOVEMBER 17, 2025

	WONDAT NOVEWBER 17, 2	.023
08:00-08:45	Registration	
08:45-09:15	Opening Ceremony	
Chairperson:	Costas Galiotis FORTH/ ICE-HT & Univ. of Patras, Greece) / Room: Main Auditorium (C Build	ding)
09:15-09:45	Zhongfan Liu (BGI/Peking University, China)	K
	Super Graphene-Skinned Materials: Concept, Synthesis and Applications	
09:45-10:15	Yury Gogotsi (Drexel University, USA)	K
	MXenes – What are the Next Steps Toward Scale-Up and Applications?	
10:15-11:15	Coffee Break / Poster Session / Exhibition	
Cha	airperson: Yury Gogotsi (Drexel University, USA) / Room: Main Auditorium (C Building)	
11:15-11:45	Costas Galiotis (FORTH/ ICE-HT and University of Patras, Greece)	K
	Graphene and 2D Materials Mechanics: From Intrinsic Limits to Composites Reality	
11:45-12:00	Dalaver Anjum (Khalifa University, United Arab Emirates)	0
	MoS2-Based 2D Nanocomposites for Energy Storage Applications	
12:00-12:30	Pablo Ordejon (ICN2, Spain)	K
	Understanding electrified electrolyte/electrode interfaces from atomistic simulations	
12:30-14:00	Cocktail Lunch (offered by I2DM2025 organisers)	
14:00-14:30	Poster Session I / Exhibition	
Chairpersor	n: <b>Cinzia Casiraghi</b> (University of Manchester / GEIC, UK) / Room: Main Auditorium (C Buildin	ng)
14:30-15:00	Rodney S. Ruoff (Center for Multidimensional Carbon Materials / UNIST, South Korea)	K
	Carbon and boron nitride materials: basic science and broader impact	
15:00-15:30	Francesco Bonaccorso (BeDimensional, Italy)	K
	Industrial production of novel 2D materials for energy and sensing technology	
15:30-16:00	Ahmed Al-Ostaz (The University of Mississippi/CGRI, USA)	I
	Barriers & Opportunities for Graphene and Graphene-Like Materials in Smart and	
	Innovative Infrastructure	
16:00-16:15	Rupa Darji (BASF Corporation, USA)	0
	Bio-inspired Photonic Microspheres: Controlling Light with a New Optical Technology	
16:15-16:30	Georgii Ermolaev (XPANCEO, United Arab Emirates)	0
	Giant optical anisotropy and high refractive index in van der Waals materials	
16:30-17:15	Coffee Break / Poster Session / Exhibition	
	Chairperson: Pablo Ordejon (ICN2, Spain) / Room: Main Auditorium (C Building)	
17:15-17:45	Kostas Kostarelos (ICN2/ICREA (Spain) and University of Manchester (UK))	K
	Clinical Translation Pathway of Advanced Materials: The Graphene Paradigm	
17:45-18:15	Cinzia Casiraghi (University of Manchester / GEIC, UK)	I
	Water-based and biocompatible 2D material inks for printed and sustainable electronics	

	TOESDAT NOVEMBER 18, 2	023
	I2DM2025 – Innovation Pitching Event	
Chairpe	rson: Mamoun Taher (RIC2D / Khalifa University, UAE) / Room: Main Auditorium (C Building)	
09:00-09:15	Francesco Bonaccorso (BeDimensional S.p.A., Italy)	0
09:15-09:30	Vincent Bouchiat (GRAPHEAL, France)	0
09:30-09:45	Joanna Baginska (Paragraf, UK)	0
09:45-10:00	Christian Salvatori (EsaNanotech, Italy)	0
10:00-10:15	Burcu Saner Okan (Euronova Next-Generation Sustainable Plastics Company, Turkey)	0
10:15-10:45	Round table "From Lab to Business: Innovation in Advanced Materials"	RT
10:45-11:15	Coffee Break / Poster Session / Exhibition	IXI
	son: Mamoun Taher (RIC2D / Khalifa University, UAE) / Room: Main Auditorium (C Building)	
Change	Farid Akhtar (Grafoam AB, Sweden)	0
	Jose Hugo Garcia Aguilar (Apeiron Intelligence, Spain)	0
	Sangeethsivan Sivakumar (ARDHANN, UK)	0
11:15-13:30	Ana Guillen Navajas (Porous Energy Tech, Spain) Guillermo Hernanz Borrego (2D4TEX, Spain)	0 0
(12 mins each)	Bushara Fatma (NanoEnerTek, United Arab Emirates)	0
	Kun Huang (Aqua2D, UK)	0
	Premlal Pillai (Hollowgraf Ltd, UK)	O
	Emad Alhseinat (Pure Hydro, UAE)	0
	Ozan Can Zehni (Dorlion SHM,UK)	0
	Sivaprakash Sengodan (AqZen, UK)	0
13:30-14:30	Cocktail Lunch (offered by I2DM2025 organisers)	
	Industrial Forum	
Ch	airperson: Matteo Negro (ESANanoTech, Italy) / Room: Main Auditorium (C Building)	
14:30-15:00	Chun Yu Lu (TII, United Arab Emirates)	K
	Shaping Light with Matter: Advanced Materials Driving the Future of Nanophotonics	
15:00-15:20	Charanjit Singh Bhatia (NUS, Singapore)	I
	Frontiers in Magnetic Recording Research: Towards 10 Terabits/In2	
15:20-15:35	Adilet Toksumakov (XPANCEO, United Arab Emirates)	0
15.25 15.55	Revisiting Carbon's Optics: From Graphite's Past to Graphene's Future	
15:35-15:55	Simon Thomas (Paragraf, UK) Graphene Electronics at Scale & What Comes Next	ı
15:55-16:15	Farid Akhtar (Grafoam AB/Luleå University of Technology, Sweden)	ı
13.33-10.13	2D Nanotechnology for Sustainable, Strong, and Frost-Resistant Concrete	'
16:15-16:45	Coffee Break / Poster session / Exhibition	
Chairperson:	Chun Yu Lu (TII, United Arab Emirates) / Room: Main Auditorium (C Building)	
16:45-17:05	Adelina Braun (Merck KGaA, Germany)	I
	Powering a Sustainable Future with Advanced 2D Nanomaterials for Energy Storage	
17:05-17:25	Matteo Negro (ESANanoTech, Italy)	I
	ESANanoTech: From Laser-Induced Graphene to Advanced Applications in Radiant	
	Heating and Energy Storage.	
17:25-17:40	Xin Gao (Peking University, China)	0
17.40 17.55	Battery Materials Innovation: Toward High-Energy Li–S Systems	0
17:40-17:55	Ahmed Abdelhady (Khalifa University, United Arab Emirates) Solvent Acidolysis Crystallization of Halide Perovskite Single Crystals	0
	Workshop 1: 2D/Advanced materials and additive manufacturing	
	hairperson: Kin Liao (Khalifa University, United Arab Emirates) / Room: Lecture Hall A	
14:30-14:45	Muhammad Faheem (Khalifa University, United Arab Emirates)  Marphalagy Danandort Catalytic Performance of CoEo 204 in Mambrana Systems for	0
	Morphology-Dependent Catalytic Performance of CoFe2O4 in Membrane Systems for Pollutant Degradation	
	. onetant pobladation	

14:45-15:00	Randa Ibrahim Fathy Gaber (Khalifa University, United Arab Emirates)  A Novel MXene-Based Membrane with Exceptional Ion Transport and Long-Term Stability	0
15:00-15:15	Ravi Pandey (Khalifa University, United Arab Emirates)  Quaternary ammonium functionalised graphene oxide/Polylactic acid (PLA) based porous antibacterial membrane for water treatment	0
15:15-15:30	<b>Muhammad Z. Iqbal</b> (United Aran Emirates University, United Arab Emirates) Poly (ethylene furanoate) (PEF)/Graphene Nanocomposites: A New Paradigm of	0
15:30-15:45	Sustainability in Materials and Membranes <b>Aya Aboukhater</b> (Khalifa University, United Arab Emirates)  Holey Graphene-Integrated NiTiO <sub>3</sub> /TiO <sub>2</sub> Heterojunction Photocatalyst for Efficient  Degradation of Antibiotics in Hospital Wastewater and Development of Self-Cleaning  Photocatalytic Membranes	0
15:45-16:05	Rahul Nair (National Graphene Institute, The University of Manchester, UK) Beyond Reverse Osmosis: 2D Materials-Based Membranes for Next-Generation Separations	1
16:05-16:45	Coffee Break / Poster Session / Exhibition	
	airperson: Rahul Nair (NGI, The University of Manchester, UK) ) / Room: Lecture Hall A	
16:45-17:05	Emad Alhseinat (Khalifa University, United Arab Emirates)	ı
	Innovation toward Sustainability in Water Treatment and Desalination through 2D Material	
17:05-17:25	Safiya Khalil Alhashmi (NYUAD: New York University Abu Dhabi, United Arab Emirates)	1
	Controlled growth and enhanced processing of 2D Covalent Organic Frameworks for	
	Sustainability Applications	
17:25-17:45	Kin Liao (Khalifa University, United Arab Emirates)	I
.= .= .0.00	Multifunctional Lightweight Materials: An overview from KU's Directed Project	_
17:45-18:00	Simona Achilli (University of Milan, Italy)	0
	Joint theoretical and experimental characterization of 2D materials heterostructures towards an improved growth efficiency	
	Workshop 2: Advanced materials in biotechnology and healthcare	
Chair	person: Lucia Gemma Delogu (Khalifa Univ & Univ of Padua, United Arab Emirates/Italy) /	
	Room: Lecture Hall B (2)	_
14:30-14:45	Shimaa Eissa (Khalifa University, United Arab Emirates)	0
	Graphene-Driven Biosensing: Functionalized Aptasensors and Immunosensors for Scalable Clinical and Environmental Detection	
14:45-15:00	Ivan Bobrinetskiy (Moscow Institute of Physics and Technology, Russia)	0
14.45-15.00	Graphene field effect transistors based on interdigitated electrodes as universal platform for biosensing	O
15:00-15:15	Nadeem Tariq (Khalifa University, United Arab Emirates)	0
	Porous Graphene Nanocomposites as Pressure Sensors for Human Activity Monitoring	
15:15-15:30	Lina Tizani (Khalifa University, United Arab Emirates)	0
	Advancing Cancer Detection: Harnessing Biosensors for Early Diagnosis	
15:30-15:45	Georgios Paterakis (University of Patras, Greece)	0
15.45 16.05	Sustainable Fabrication of Graphene Based Sensors	
15:45-16:05	Vincent Bouchiat (Grapheal, France) Graphene biosensors for rapid field detection of biomarkers and trace pollutants: From	ı
	lab validation to mass market applications	
16:05-16:45	Coffee Break / Poster Session / Exhibition	
	Chairperson: Vincent Bouchiat (Grapheal, France) / Room: Lecture Hall B (2)	
16:45-17:05	Lucia Gemma Delogu (Khalifa Univ & Univ of Padua, United Arab Emirates/Italy)	ı
	MXene chemistries and the immune system	
17:05-17:20	Laura Fusco (University of Padua, Italy)	0
	Single-Cell Insights into MXene Oxidation and Biocompatibility in Immune and Skin Models	
17:20-17:35	Giacomo Reina (Empa, Switzerland)	О
47.05.47.50	2D Carbon Nanomaterials as Photoactive Antiviral and Antibacterial Agent	0
17:35-17:50		0
	Roberta Cagliani (Khalifa University, United Arab Emirates)  Functionalized earlier detailed interactions with the immune system; from imaging to	Ü
	Functionalized carbon dots interactions with the immune system: from imaging to biomedical applications	J

	Workshop 3: 2D/Advanced Materials for Energy	
Chairp	erson: Lourdes F. Vega (Khalifa University, United Arab Emirates) / Room Lecture Hall B (1)	
14:30-14:50	Ammar Nayfeh (Khalifa University, United Arab Emirates)	I
	Use of Graphene in Photovoltaics	
14:50-15:05	Lakshya Mathur (Khalifa University, United Arab Emirates)	Ο
	Layered Perovskite Nanofibers with Tailored Entropy for Alkaline Water Electrolysis	
15:05-15:25	Kyriaki Polychronopoulou (Khalifa University, United Arab Emirates)	1
	From Haber-Bosch to Next-Gen Catalysis: Ammonia Production Reimagined	
15:25-15:40	Muhammad Ashraf Sabri (Khalifa University, United Arab Emirates)	0
	Tailored 2D g-C₃N₄ Photocathodes with NiMoBW Sites for Efficient Furan Conversion	
15:40-15:55	Rohan Ambade (Khalifa University, United Arab Emirates)	О
	2D Hexagonal Boron Nitride synthesized via Scalable High-Pressure Homogenization for	
	Sustainable Triboelectric Energy Harvesting	
15:55-16:15	Dinesh Shetty (Khalifa University, United Arab Emirates)	I
	Molecular-level Design Strategy in 2D-Organic Frameworks for Efficient Desalination and	
	Resource Recovery	
16:15-16:45	Coffee Break / Poster Session / Exhibition	
•	erson: Lourdes F. Vega (Khalifa University, United Arab Emirates) / Room Lecture Hall B (1)	
16:45-17:05	Mohammad Abu Zahra (Global CCS Institute, United Arab Emirates)	I
	Carbon Capture and Storage: Global Progress, Technology Status, and R&D Priorities	
17:05-17:20	Chanaka Sandaruwan (Khalifa University, United Arab Emirates)	О
	Graphene Enhanced Hydrogen Storage Tanks: Performance Comparison with Commercial	
	Variants	
17:20-18:20	Round Table "2D and Advanced Materials for Energy: Challenges and Opportunities"	
20:30	CONFERENCE DINNER	
	Pitching Event awards ceremony	
	VOGO Abu Dhabi Golf Resort & Spa	
	Abu Dhabi, United Arab Emirates, 126797	
	<u>www.vogohotels.com</u> - Google maps - <u>more info</u>	

	Industrial Forum	<i>3</i> 23
Chairpe	erson: Kari Hjelt (Chalmers Industriteknik, Sweden) / Room: Main Auditorium (C Building)	
09:00-09:20	Andrea Capasso (INL, Portugal)	ı
	Large-scale green production of 2D crystals for advanced technologies	
09:20-09:40	Kazuo Muramatsu (Incubation Alliance Inc., Japan)	1
	Mass Production and Advanced Application of Graphene Flower® and Related Products	
09:40-09:55	Kaicheng Jia (Beijing Graphene Institute, China)	0
	Controlled synthesis of wafer-scale single-crystal metal thin films for epitaxial graphene growth	
09:55-10:10	Luzhao Sun (Beijing Graphene Institute, China)	Ο
	Layer and Stacking Controlled Epitaxial Growth of Graphene Films	
10:10-10:25	Li Lin (Peking University, China)	О
	Automated processing and transfer of graphene wafers	
10:25-11:30	Coffee Break / Poster Session / Exhibition	
	Industrial Forum	
(	Chairperson: Andrea Capasso (INL, Portugal) / Room: Main Auditorium (C Building)	
11:30-11:45	Dolapo Onabule (Edinburgh Instruments, UK)	О
	Integrated Optical and Nonlinear Microscopy for TMD Analysis	
11:45-12:00	Sabarigresan Murugan (Park systems India Pvt Ltd, India)	О
	Advanced AFM Techniques for Graphene Research: Integrating Atomic Resolution,	
12.00 12.15	Electronic Properties, and Nano-Manipulation	_
12:00-12:15	<b>Yuqing Song</b> (Beijing Graphene Institute (BGI), China)  Controlled Growth of Graphene-skinned Powder Materials by Fluidized Bed-Chemical	0
	Vapor Deposition for Heat Dissipation	
12:15-12:30	Mariam AlMahri (RIC2D/INTRATOMICS , United Arab Emirates)	0
12.13 12.30	Laser-Induced Formation of Molybdenum Trioxide Crystals	O
12:30-12:45	Colin Elcoate (Levidian, United Arab Emirates)	0
	Beyond the Breakthrough: Why Graphene Still Hasn't Scaled - and What We're Going to	
	Do About It	
12:45-13:05	Kari Hjelt (Chalmers Industriteknik, Sweden)	- 1
	Graphene innovation and commercialization	
	Workshop 4: Lightweight multifunctional 2D-enhanced composites	
Chairp	erson: Burcu Saner Okan (Sabanci University & Euronova, Turkey) / Room: Lecture Hall A	
09:00-09:15	Juraij Kandiyil (United Arab Emirates University, United Arab Emirates)	0
	Poly (ethylene furanoate)/Graphene oxide Nanofibrous composite membrane: A Novel	
	Sustainable Membrane for Microplastics Separation	
09:15-09:30	Murad Ali (Khalifa University, United Arab Emirates)	0
	Enhancing Mechanical Properties of Graphene-Reinforced Photopolymer Resins via	
	Additive Manufacturing	_
09:30-09:45	Ozan Can Zehni (The University of Manchester, UK)	0
00.45 40.05	Enhancing the Recyclability of Polycarbonate Using Graphene Nanoplatelets	
09:45-10:05	Ian Kinloch (Manchester University, UK)	ı
10:05-10:25	Multifunctional Composites Enabled by 2D Materials  Prasad Potluri (GEIC, University of Manchester, UK	
10.05-10.25	Damage tolerance through targeted delivery of 2Dmaterials in structural composites	'
10:25-10:45	Rehan Umer (Khalifa University, United Arab Emirates)	- 1
10.25 10.45	Graphene-Modified Composite Tanks for High-Integrity Hydrogen Storage	•
10:45-11:30	Coffee Break / Poster Session / Exhibition	
	Workshop 5: Enabling Innovation - Advanced Materials for Aerospace & Aviation	
09:00-09:15	hairperson: Yarjan Abdul Samad (Khalifa University, UAE) / Room: Lecture Hall B (1)  Israr Ahmed (Khalifa University, United Arab Emirates)	0
05.00-05.13	MoO₃-Embedded Polymer Sensors for Narrowband UV Rejection in Optical and Fiber Configurations	J
	111003 Embedded Folymer Schools for Nathowsband of Rejection in Optical and riber Colligurations	

09:15-09:30	Sheng Wang (The University of Manchester, UK)	0
09:30-09:50	Hybrid Interlaminar Toughening of Carbon/Epoxy Composites Using Nanoparticles and Veils  Dimitra Atri (NYU Abu Dhabi, United Arab Emirates)	ı
03.30 03.30	From Regolith to Reality: Advanced Materials Pathways for Lunar and Martian Surface	•
	Engineering	
09:50-10:10	Carlo Saverio Iorio (Université Libre de Bruxelles / CREST, Belgium)  Manufacturing in Space: a Challenge at the Crossroads of Material Science and	ı
	Engineering	
10:10-11:30	Coffee Break / Poster Session / Exhibition	
C	hairperson: Yarjan Abdul Samad (Khalifa University, UAE) / Room: Lecture Hall B (1)	
11:30-11:50	Hessa Almatroushi (Mohammed Bin Rashid Space Centre, United Arab Emirates)	I
11:50-12:10	Enabling Human Exploration through Materials Innovation  Sean Swei (Khalifa University, United Arab Emirates)	
11.50-12.10	Enabling Sustainable Access to LEO – A CubeSat-based Solution	'
12:10-12:30	Giacomo Riboni (Roboze, Saudi Arabia)	1
	Reshaping Aerospace Manufacturing with High-Performance Polymer 3D Printing	
12:30-13:30	Round table "Lifting Innovation: Advanced Materials Transforming Aerospace and Aviation"	RT
	Workshop 6: AI for Advanced materials	
	Chairperson: Luzhao Sun (Peking University, China) / Room: Lecture Hall B (2)	
09:00-09:15	Samee Ullah Khan (Khalifa University, United Arab Emirates)	0
	Multi-Modal Prompt Learning for Hydrogen Storage Composite Inspection	
09:15-09:30	Sasan Nouranian (Center for Graphene Research and Innovation, Univ. of Mississippi, USA)	0
	Experiment–Machine Learning Synergy for Catalytic Carbonization of	
00.20 00.45	Polyetherimide/Graphite Nanocomposites	0
09:30-09:45	Yuting Li (Khalifa University, United Arab Emirates) Electric-Field Modulated Adsorption and Functionalization of Graphene by Radicals and	0
	Anions: A First-Principles Study	
09:45-10:00	Ivan Kruglov (Emerging Technologies Research Center, XPANCEO, United Arab Emirates)	0
	Al-guided search for bulk and 2D materials with target optical properties	
10:00-10:20	Sonia Conesa Boj (TU Delft, The Netherlands)	1
	Machine Learning from the Large Hadron Collider to van der Waals Materials	
10:20-10:40	Jose Hugo Garcia (Apeiron / ICN2, Spain)	I
	How can automated R&D workflows make you efficient: expectations, pitfalls, and	
10.40 11.20	perspectives  Coffee Break / Poster Session / Exhibition	
10:40-11:30 11:30-13:30	PhD Students Session	
11.30 13.30		
	Parallel Session PhD Students	
	Chairperson: Sonia Conesa Boj (TU Delft, The Netherlands) / Room: Lecture Hall A	
11:30-11:40	Aya Ghazal (Khalifa university, United Arab Emirates)	0
	Functionalized nanocomposites via eutectic solvent for environmentally sustainable	
11:40-11:50	applications <b>Abdallah Kamal</b> (Khalifa University, United Arab Emirates)	О
11.40-11.50	Ti <sub>3</sub> C <sub>2</sub> T <sub>X</sub> MXene-Coated TPMS Structures for Lightweight, Absorption-Driven EMI Shielding	U
11:50-12:00	Khulood Alshehhi (Khalifa University, United Arab Emirates)	0
	Conducting Polymer Scaffolds Based On PEDOT:PSS/MXene Composites for Drug Delivery	
	in Wound Healing Applications	
12:00-12:10	Linda Giro (University of Padua, Italy)	0
	Impact of Protein Corona on MXene Immune and Biological Interactions	
12:10-12:20	Stefan Jarić (University of Novi Sad, Biosense Institute, Serbia)	0
	Bioelectronical devices based on graphene FETs with aptamers for detection of small molecules and peptides	
12:20-12:30	Dobrisan Mihaela-Raluca (National University of Science and Technology Politehnica	О
12.20 12.30	Bucharest, Romania)	5
	3D Printed Gellan/Gelatin Scaffolds Reinforced with Cellulose Nanofibrils and Graphene	
	Derivatives for Bone Tissue Engineering Applications	

12:30-12:40	Laura Falco Paiva Carvalho (Khalifa University, United Arab Emirates)	0
12.40 12.50	3D printing antifouling properties into nanoporous membranes	0
12:40-12:50	Muhammad Kashif Raza (Khalifa University, United Arab Emirates)  Developing Scalable Graphene based Electrodes for Capacitive Deionization	0
12:50-13:00	Yuchian Soong (The University of Manchester, UK)	0
	Mechanism of the electrochemical hydrogenation of graphene	
13:00-13:10	Mohammad Al Hamdi (Khalifa University, United Arab Emirates)	0
	Proton Permeation and Electronic Analysis in 2D Transition Metal Dichalcogenides: A	
12 10 12 20	First-Principles Study	_
13:10-13:20	Shaokai Zhou (Southern University of Science and Technology, China)	0
	Broadband Deep UV to NIR Photodetection with High Stability and Large Dichroic Ratio Enabled by Type-I Band Engineering	
13:20-13:30	Omnia Khattab (Khalifa University, United Arab Emirates)	0
	Laser Propulsion of Three-Dimensional Graphene Structures For Space Applications	
13:30-14:30	Cocktail Lunch (offered by I2DM2025 organisers)	
14:30-15:00	Poster Session 2	
	Plenary Session	
	Chairperson: Aravind Vijayaraghavan (The University of Manchester, UK) /	
	Room: Main Auditorium (C Building)	
15:00-15:30	Lourdes F. Vega (Khalifa University, United Arab Emirates)	I
	2D Materials for Clean Energy: From Molecular Design to Scalable Decarbonization	
15:30-15:45	Technologies  Kun Huang (National Graphene Institute, UK)	0
15.50-15.45	Cooperative Jahn-Teller effect and engineered long-range strain in manganese	U
	oxide/graphene superlattice for aqueous zinc-ion batteries	
15:45-16:00	Maryam Khaleel (Khalifa University, United Arab Emirates)	0
	Investigating the effect of the textural properties of Zeolite Templated Carbon Air	
	Electrode on Lithium Oxygen Battery Performance	
16:00-16:15	Ekaterina Pomerantseva (Drexel University, USA)	0
	Unlocking New Two-Dimensional Oxide Materials via MXene Transformation for Energy Storage	
16:15-16:45	Marcelo Lozada hidalgo (The University of Manchester, UK)	I
46 45 47 45	2D proton permeable materials for energy and unconventional computing	
16:45-17:15	Coffee Break / Poster Session / Exhibition	
	Chairperson: Marcelo Lozada hidalgo (The University of Manchester, UK) / Room: Main Auditorium (C Building)	
17:15-17:45	Burcu Saner Okan (Sabanci University & Euronova, Turkey)	K
	Sustainable Nanoengineering for Next-Generation Circular Thermoplastic Composites	
17:45-18:15	Aravind Vijayaraghavan (The University of Manchester, UK)	I
	Unique electro-hydro-dynamic behaviours in graphene oxide dispersions	

### THURSDAY NOVEMBER 20, 2025

Chairpers	son: <b>Daniel Bahamon Garcia</b> (Khalifa University, UAE) / Room: Main Auditorium (C Building)	
09:00-09:15	Gleb Tselikov (Emerging Technologies Research Center, XPANCEO, United Arab Emirates)	0
	Tunable Nanostructuring for van der Waals Materials	
09:15-09:30	Dineshkumar Sengottuvelu (CGRI / University of Mississippi, USA)	0
	Interfacial Charge Transfer Mechanisms Driving High Responsivity in WS <sub>2</sub> QD/MoS <sub>2</sub>	
	Photodetectors	
09:30-09:45	Mikhail Otrokov (Instituto de Nanociencia y Materiales de Aragón (INMA), CSIC-	0
	Universidad de Zaragoza, Spain)	
	Magnetic anisotropy and Curie temperatures of chromium chalcohalide two-dimensional	
	Janus ferromagnets	
09:45-10:15	Valentyn S. Volkov (XPANCEO, United Arab Emirates)	ı
	Scalable Ultrathin Gold Films for Next-Generation Optoelectronic Applications.	
10:15-11:15	Coffee Break / Poster Session / Exhibition	
	Coffee Break / Poster Session / Exhibition erson: Yarjan Abdul Samad (Khalifa University, UAE) / Room: Main Auditorium (C Building)	
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Chairpe	rson: Yarjan Abdul Samad (Khalifa University, UAE) / Room: Main Auditorium (C Building)	Р
Chairpe	rson: <b>Yarjan Abdul Samad</b> (Khalifa University, UAE) / Room: Main Auditorium (C Building) <b>Kostya Novoselov</b> (NUS, Singapore)	P O
Chairpe 11:15-12:00	rson: Yarjan Abdul Samad (Khalifa University, UAE) / Room: Main Auditorium (C Building) Kostya Novoselov (NUS, Singapore) Dynamic van der Waals heterostructures (& new electronic phases) Piotr Dlugolecki (Technology Innovation Institute, United Arab Emirates)	
Chairpe 11:15-12:00	Krson: Yarjan Abdul Samad (Khalifa University, UAE) / Room: Main Auditorium (C Building) Kostya Novoselov (NUS, Singapore) Dynamic van der Waals heterostructures (& new electronic phases) Piotr Dlugolecki (Technology Innovation Institute, United Arab Emirates) Integrated Brine Mining Platform: Turning Desalination Waste into Strategic Resources	
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