



Advancing International Collaboration in Carbon-Based Innovations:

Highlights of the C-MEMS 2025 Conference



Conference Attendees from the University of Miami, Florida International University, Clemson University, Denmark Technical University, Karlsruhe Institute of Technology, Kochi University of Technology, San Diego State University, Tec De Monterrey, Universidad Nacional Autónoma de México



The 2025 C-MEMS Conference held January 13–14, 2025 at the Shalala Center on the University of Miami's Coral Gables campus, provided an exciting platform for innovation, knowledge-sharing, and professional growth. The conference brought together experts from academia and industry, showcasing the latest research and advancements in carbon material processing, device applications, and sustainability.



Young Scholar's Networking Event at the Frost Molecular Science Building, University of Miami

The event kicked off with a networking event for Early Career Researchers (ECRs) on January 12, 2025, and featured diverse sessions including technical presentations, poster displays, and interactive panel discussions. Topics spanned cutting-edge fabrication techniques, novel device designs, and strategies for integrating carbon materials into emerging technologies and development of carbon microelectromechanical systems (C-MEMS). Networking opportunities allowed attendees to exchange ideas and build new collaborations across disciplines.





Conference Host Dr. Chunlei (Peggy) Wang introducing the Broadening Carbon Ring Leadership Team





Day One of C-MEMS Conference Session: Welcome Address by Prof. Pratim Biswas, Dean of Engineering

Key sessions also focused on equipping attendees for success in their careers. Panel discussions addressed challenges and opportunities in academia and industry, offering practical insights from seasoned professionals. The conference opened with a Welcome address by Prof. Pratim Biswas, Dean of Engineering at the University of Miami, who began by introducing a burgeoning tech ecosystem in Miami and emphasized University of Miami College of Engineering's efforts to foster innovation and collaboration to advance research and application in South Florida. Dr. Kara C. Hoover, Program Director of OISE at the National Science Foundation (NSF), highlighted the importance of international collaborations. The keynote speakers, Dr. Jenny Emnéus (DTU), Dr. Stephan Keller (DTU), Dr. Marc Madou (Tec De Monterrey) provided a comprehensive idea of the cutting-edge technology being developed with C-MEMS, future research needs in the field, and opportunities.





Keynote Speakers: (Left to Right) Dr. Jenny Emnéus, Dr. Stephan Keller, Dr. Marc Madou

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C-MEMS Conference Highlights



Dr. Nezih Pala, Dr. Rodrigo Martinez-Duarte, and Dr. Sam Kassegne





Poster Session