

# Joint Researchers Workshop on Semiconductors

➤ 9<sup>th</sup> October 2024

## PROGRAMME

### 1<sup>st</sup> DAY

#### Morning

Welcome Coffee and Pastries

#### OPENING AND POLICY SESSION *(Chair: Elles Van de Ven)*

08h45

- **Welcome note** – Mr. Sagar Sharma, CoS, ISM, In-person

08h55

- **Welcome Note** – Pierre Chastanet - Head of the Unit of C.3 Microelectronics and Photonics - European Commission

09h05 – 09h35

- **Industry Participants introduction/ presentation** - India – Mr. Rajesh Nair, Tata Electronics; Mr. Raghu Panicker, Kaynes
- **Industry Participants introduction/ presentation** – EU - Christofer Frieling – SEMI Europe

#### SESSION 1 – Heterogeneous Integration & Packaging *(Chair: Francis Balestra)*

09h35

- **High-speed interconnects for advanced computing and communication: Evolution, Challenges, and what lies ahead?** - Prof. Rohit Y Sharma - IIT Ropar

10h00

- **How 3D integration can help the emergence of Power efficient innovative architectures?** - Olivier Faynot, CEA-Leti

10h25

- **Heterogenous integration -Enabling systems beyond Moore’s Law** - Andreas Middendorf - Fraunhofer IZM

Coffee Break 10h50

#### SESSION 2 – More than Moore Functionalities *(Chair: Francis Balestra)*

11h20

- **Silicon Photonics Technology at CoE-CPPICS, IIT Madras** - Prof. Bijoy Krishna Das, IIT Madras

11h45

- **GaN Technology for Power Electronics Applications** – Urmimala Chatterjee, imec

12h10

- **Semi-conductor Laboratory : Capabilities Overview** - Dr. Kamaljeet Singh, DG, SCL

12h35

- **Silicon Photonics: review of the main EU and international activities and technologies** - Roel Baets, Ugent

Lunch Break 13h00

## Afternoon

### SESSION 3 – Sustainable Manufacturing and Materials *(Chair: Giorgos Fagas)*

14h20

- **Bio-based materials and processes for pcbs: an example of pathway for sustainable micro-nanoelectronics?** – Pascal Xavier, Université Grenoble Alpes

14h55

- **Advanced Materials for next-generation Semiconductor technology** - Rajeev Ahuja, IIT Ropar

15h20

- **Towards Sustainable electronic** – Olivier Faynot, CEA-Leti

15h45

- **Sustainability in information and communication technologies** – Jean-Pierre Raskin, UCLouvain

Coffee Break 16h10

### SESSION 4 – IC & System Design *(Chair: Giorgos Fagas)*

16h40

- **IC and System Design - The quantum way** – V.Kamakoti Veezhinathan, IIT Madras

17h05

- **AI-enabled smart and secure electronic systems design and Indigenous Electronic Design Automation Tools for VIKSHIT BHARAT 2047** – Gaurav Trivedi, IIT Guwahati

17h30

- **The Open-Source PULP Platform for tinyML Heterogeneous Hardware Acceleration** – Francesco Conti, Unibo

17h55

- **Digital system design at IIT Bombay** – Madhav P. Desai, IIT Bombay

### FINAL SESSION

18h20

- **Closing remarks** - Elles Van de Ven, European Commission DG Connect

Cocktail Dinner 18h30

Scan the QR code to discover the detailed program:

