

# InLitho 2027

## INDIA LITHOGRAPHY WORKSHOP • ENABLING SEMICONDUCTOR MANUFACTURING

Organized by SAMARTH (Silicon and Advanced Semiconductor Manufacturing Research and Training Hub)  
Indian Institute of Technology Gandhinagar (IITGN), Palaj, Gandhinagar, Gujarat – 382355, India

### About InLitho 2027

InLitho 2027 is India's premier national forum dedicated to semiconductor lithography science, EUV/DUV technologies, computational patterning, and semiconductor workforce development. Hosted at IIT Gandhinagar under the ₹190 Crore SAMARTH initiative supported by MeitY and DST (Govt. of Gujarat), the workshop convenes researchers, commercial fabs, tool OEMs, materials suppliers, and students.

### Key Technical Themes

#### Theme 1: Lithography Fundamentals & Process Integration

Scanner optics, photoresists, overlay metrology, etch transfer, defectivity, cleanroom integration.

#### Theme 2: Advanced Technologies & EUV

Extreme Ultraviolet (13.5 nm), High-NA EUV, DUV immersion, pellicles, mask synthesis.

#### Theme 3: Computational Lithography & AI

Optical Proximity Correction (OPC), Source-Mask Optimization (SMO), Inverse Lithography (ILT), GPU acceleration.

#### Theme 4: Materials & Manufacturing Challenges

Novel metal-oxide photoresists, green chemistry, mask blanks, fab yields, high-throughput inspection.

### Workshop Leadership

**Convenor & Chair:** Prof. Nihar Ranjan Mohapatra (IIT Gandhinagar)

**Co-Chair:** Prof. Ken Gonsalves (Guest Professor, IIT Gandhinagar)

**Industry Co-Chair:** Samit Barai (Senior Director, Tata Electronics / TSMPL)

### Contact & Online Registration

**Official Portal:** [www.samarth-inlitho.com](http://www.samarth-inlitho.com) • **Email:** [secretariat@samarth-inlitho.com](mailto:secretariat@samarth-inlitho.com)

**Venue:** Jibaben Patel Auditorium & SAMARTH Nanofabrication Hub, IIT Gandhinagar, Gujarat, India