



34th International Conference on Microelectronic Test Structures

April 12 - 15, 2021, Cleveland, OH, USA

Looking for the best opportunity to present and discuss your ideas and results about test structures, measurements and characterization? This is your chance! Join the 34th ICMTS conference.

A **Tutorial Short Course** will precede the main conference. Several of the best measurement, equipment design, and manufacturing experts, will participate in the **equipment exhibition** and presentations.

The conference will bring together designers and users of test structures to discuss recent developments and future directions, in a **one-track program**, with convivial breaks allowing attendees to discuss and exchange viewpoints and challenges.

A **Best Paper award** will be presented by the Technical Program Committee. The **IEEE Electron Devices Society** is the co-sponsor, and all presented papers will be submitted for possible inclusion on **IEEE Xplore**[®]. Original papers are solicited presenting new developments in *topics relevant to ICMTS*, including but not limited to, *test structures, measurements, and results*, in the following areas:

- Design
 - Methodologies, verification
 - Within-die circuits for process characterization/monitoring
 - Design enablement – Characterization and validation of digital and analog libraries
- Measurement techniques
 - DC, AC and RF measurements: setup, test and analysis
 - Reliability test - including thermal stability, failure analysis *etc.*
 - Statistical analysis, variability, throughput increase, smart test strategies
 - Use of machine learning and AI in analysis of data sets - parameter extraction *etc.*
 - Wafer probing, within-die measurements, in-line metrology
 - Throughput, testing strategies, yield enhancement and process control tests
- Applications
 - Emerging memory technologies (single cell, arrays, and application in neural networks)
 - Emerging transistor technologies for digital/analog/power applications
 - Photonic devices - silicon integration, new displays (OLED, μ -displays)
 - Flexible electronics and sensors (organic and inorganic materials)
 - M(N)EMS, actuators, sensors, PV cells and other emerging devices

The author's abstract submission consists of up to four pages in PDF format (font-embedded). The first page should include a **title**, a **50-word summary**, author name(s), full address, contact number, and e-mail of the lead author, and any preference for oral or poster session presentation. The body of the abstract should consist of one page of text (800 to 1000 words) and up to **two pages of major figures and tables**.

The selection process will be based on the technical merit and will be highly weighted in favor of abstracts with *high test structure content (including illustration) along with measurements and data analysis*.

The abstract submission deadline is October 16, 2020.

Abstracts can be submitted via the ICMTS website <http://www.icmts.net> using the "Submit Abstract" link on the front page.

Notice of paper acceptance will be sent to the selected authors by **mid-December, 2020**, with instructions for the expanded manuscript preparation for the conference proceedings. The deadline for **submission of the final paper** will be **February 19, 2021**.

Please join the ICMTS group at www.linkedin.com/groups/3804498, if you have in interest all things test structure related.

Details of the venue, hotel, registration, *etc.* will be posted at the ICMTS official web site. *ICMTS is currently planned to be in person with the possibility of going virtual if necessary.*

For further technical information, please contact the technical program chair:
Chadwin Young, University of Texas at Dallas. chadwin.young@utdallas.edu



General Chair:

Brad Smith
NXP Semiconductors
brad.smith@nxp.com

Technical Program Chair:

Chadwin Young
University of Texas, Dallas
chadwin.young@utdallas.edu

Tutorial Chair:

Matthew Rerecich
Samsung Austin Semiconductor, LLC
m.rerecich@samsung.com

Equipment Exhibition Chair:

Garrett Tranquillo
Celadon Systems, Inc.
garrett.tranquillo@celadonsystems.com

Local Arrangements:

Brad Smith
NXP Semiconductors
brad.smith@nxp.com

ICMTS Steering Committee:

Asian Representative:

Satoshi Habu
Keysight Technologies, Japan
satoshi_habu@keysight.com

European Representative:

Hans Tuinhout
NXP Semiconductors
hans.tuinhout@nxp.com

USA Representative:

Bill Verzi
Semiconductor Test Advisor
bill.verzi@ieee.org