Technical presentations on **Feb 13 and 14** at HQ:

For more detail about the conference: [www.dtmes.org](http://www.dtmes.org)
Meta Platforms and Qualcomm are the Platinum and Gold Sponsors, respectively
IEEE EPS Silicon Valley Area Chapter and Commercial Bank of Ethiopia are the Silver Sponsors
IEEE EPS and IEEE EDS are the Society Sponsors
Addis Ababa Institute of Technology is the Local Sponsor
Attendance

• 81 registered for the conference. This includes mostly graduate students and instructors from AAiT (Addis Ababa Institute of Technology) and engineers from local industries and companies abroad

• On average, about 75 attended each day

• There was no on-site registration, as prior registration is required to enter the conference premises, by the request of the venue provider
Conference Room

DTMES provided badges and printed program guides
Conference Opening

- Dr. Kitty Pearsall, IEEE EPS president along side with Prof. Arockia Nathan (J-EDS editor), University of Cambridge (virtually)
- Dr. Bikilla Tekilu, AAiT Executive Director and Dr. Bisrat Derebssa, Dean of School Electrical and Computer Engineering (live)
- DTMES organizers welcomed conference attendants
IEEE Activities Following IEEE DTMES 2022

- Dr. Fetene Mulugeta summarized the annual IEEE activities in Addis Ababa, Ethiopia
  - Second IEEE DTMES
  - IEEE EPS Student chapter
  - Mini colloquium with IEEE EDS was held in Addis Ababa in Nov. 11 2022
  - Formation of IEEE Ethiopia subsection under Region 8 (Europe, Middle East and Africa) approved in June 2022
  - Dr. Fetene Mulugeta, IEEE Ethiopian Subsection Chair, attended the 120th IEEE Region 8 committee meeting in March 8, 2023 in Bucharest, Romania
IEEE Ethiopian Subsection Chair, Dr. Fetene Mulugeta, attended the 120th IEEE Region 8 meeting in March 2023 in Bucharest, Romania. He also met the IEEE African Council members and now Ethiopia is part of the IEEE African council member now. Dr. Fetene Mulugeta is the new African counsel member.
Other Activities

- IEEE AFRICON 2015 organized in Addis Ababa in September 2015
- ICT4DA (Information and Communication Technology for Development for Africa) 2022, an IEEE sponsored conference was held in Bahir Dar, Ethiopia in Nov. 2022
Two Keynote Speeches

• As Platinum and Gold Sponsors, Meta Platforms and Qualcomm gave the keynote speeches on Day 1 and 2, respectively
Five Plenary Talks Given by Experts

• Prof. Benjamin Iñiguez, Editor of IEEE Trans. Of Electron Devices Society, talked about EDS role in DTMES

• Five plenary talks (~ 40 min. long each) were given during the two days of DTMES 2023 by
  • Prof. Masum Hossain, Carlton University, Canada, on High-Speed Links
  • Dr. Yuriy, Shlepnev, Simberian Inc., USA, on Computational Electromagnetics
  • Prof. Benjamin Iñiguez, URV, Spain, on Semiconductor Device Compact Modeling
  • Dr. Vaishnav Srinivas, Qualcomm, USA, on Signal and Power Integrity
  • Dr. Dongkai Shangguan, USA, on Interconnect Reliability
Several Graduate Students Made Excellent Presentations
The Technical Sessions were well attended

- The keynote speeches and the plenary talks were well attended
- The technical presentations were very interactive
Lunch and Coffee Breaks

• DTMES provided lunch, morning and afternoon coffee breaks
  • These breaks provided very good opportunities for attendants from various local institutions and few international participants to interact and network
Conference Attendants

• Some of the conference attendants on day 1 and day 2
Speaker Appreciate Gifts and Lottery Winners

• Dean Dr. Bisrat Derebssa handed the thank you gifts to speakers
• Three lucky members of the audience also received raffle gifts
DAY 1: MONDAY, FEB. 13, 2013
9:00 - 9:40am
IEEE DTMES 2023 Welcome Remarks
Co-Chairs: Dr. Wondem Beyene and Prof. Anokia Nathan, UK
Local Chair: Dr. Fetene Mulugeta
AMI Executive Director: Dr. Bekila Tefiku
Dean of School of Electrical and Computer Engineering, Dr. Birat, AAMI CBE Representative
Welcome by IEEE EDS President: Dr. Kitty Pearson
And IEEE EDS Representative Prof. Benjamin
Announcing IEEE Ethiopian Subsection Formation

10:00 - 10:40am
Plenary Talk I: "Evolution of the Timing Recovery Techniques in High-speed Links," Prof. Masum Hossain, Carlton University

10:40 - 10:55am
COFFEE BREAK

10:55 - 11:45am
Plenary Talk II: "Computational Electromagnetics of Digital Applications," Dr. Yuriy, Shelepnev, Simbarion Inc, USA

Plenary Talk III: "Semiconductor Device Compact Modeling: Concepts and Challenges," Prof. Benjamin Ituriez, URV, Spain

11:45 - 12:30pm
LUNCH BREAK

12:30 - 2:00pm
"Infection of Memory Errors on Commodity Workstations at High Altitude," Yosif Philips, Harvard University, Ethiopia

"Acceleration of Deep Neural Network Training Using Field Programmable Gate Arrays," Guta Tesema Tufa, Addis Ababa University

"Application layer DDoS Attack Classification using Deep Learning," Backham Berhane, AAMI, Ethiopia

COFFEE BREAK

3:00 - 3:30pm
"Amhara SMS spam detection using Deep Learning," Woneshe Fetahun, AAMI, Ethiopia

"Unmanned Ground Vehicle (UGV)," Yosef Jemal, Bahir Dar Institute of Technology, Ethiopia

4:00 - 4:30pm
DAY 2: TUESDAY, FEB. 14, 2013
9:00 - 9:20am
IEEE DTMES 2023 Welcome Remarks
Local Chair: Dr. Fetene Mulugeta, AAMI

9:15 - 9:25am
Qualcomm products in XR/AR space

9:25 - 10:00am
Plenary Talk IV: "Early Planning for Robust Signal and Power Integrity," Qualcomm Dr. Vahidnaw Simhaivas, Qualcomm, USA

10:00 - 10:40am
Plenary Talk V: "Interconnect Reliability in Electronic Systems: An Overview," Dr. Donghai Shangguan, USA

10:40 - 10:55am
COFFEE BREAK

10:55 - 11:25am
"Domain-Specific Architecture for UAV Path Planning" Kidist Andarga, AAMI, Ethiopia

"Classification Of Invasive And In Situ Lobular Carcinoma In Breast Cancer Using Deep Learning," Kalkidan Ntabe, Addis, Ethiopia

11:25 - 12:00pm
LUNCH BREAK

12:00 - 1:30pm
"A Domain-Specific Architecture for Computer Vision Application In Autonomous UAVS," Tiphblis Gashaw, AAMI, Ethiopia

"Remotely operated military weapon and its applications," Yosef Jemal, Bahir Dar Institute of Technology, Ethiopia

"Explorable Rhythm Based Heart Disease Detection From ECG Signals," Derege Degewe, Addis, Ethiopia

COFFEE BREAK

1:30 - 2:00pm
2:00 - 2:30pm
2:30 - 3:00pm
3:00 - 3:30pm
3:30 - 5:00pm
Closing Remarks and Lottery Drawing
IEEE AAiT Student Branch Activity in 2023

• IEEE EPS sponsored distinguished lecture was held on Feb. 28, 2023 at AAiT, Addis Ababa University
• About 60 students attended the presentation
• The presentation was followed by a pizza and coffee break
Applications of Machine Learning to Signal and Power Integrity Problems

Wendem Tsegaye Beyene
Analog & Mixed Signal Architect, Meta Platforms, USA
IEEE EPS Distinguished Lecturer
Addis Ababa, Ethiopia, Feb 28, 2023
Summary

• Significant interest to attend the conference by many graduate students at from universities across the country
• Over 81 registered and over 75 attended each day
• The AAiT ECE department continues to provide strong support to DTMES
• Check the DTMES webpage for any updates: www.dtmes.org (Thanks to Prof. Jose Schutt-Aine’s support)