

SE5: Making a Career Choice

Organizers/ Moderators:



Denis Daly
Apple, Cambridge, MA



Zeynep Lulec
Analog Devices, Canada



Rabia Tugce Yazicigil
Boston University
Boston, MA

This interactive event will include several distinguished panelists representing a broad variety of career choices in the areas of start-ups, industry, research, and academia available to graduates in electrical and computer engineering. Following short introductory remarks by each panelist, this forum will open for audience interaction in which the audience is invited to express a broad range of questions to the panelists.

Panelists:

Alison Burdett, *Sensium Healthcare, United Kingdom*
Rituparna Mandal, *MediaTek, India*
Matheus Moreira, *Chronos Tech, CA*
Dante Muratore, *Stanford, CA*
Aisha Walcott-Bryant, *IBM, Kenya*
Seng-Pang (Ben) U, *Synopsys Macau & University of Macau*

Panelists:



Alison Burdett, *Sensium Healthcare, United Kingdom*

Alison Burdett has over 30 years of experience in electronic engineering and semiconductor design, particularly in the field of ultra-low power wireless communication for medical applications. She co-founded Toumaz in 2001 and served as Technical Director, becoming Chief Technical Officer (CTO) in 2006, responsible for delivering silicon and advanced technology programmes for both consumer and healthcare divisions of the business. In 2016 the healthcare business unit of Toumaz, Sensium Healthcare, became part of The Surgical Company Group and Alison joined Sensium where she became Chief Scientific Officer (CSO), responsible for all engineering and scientific programmes for the company's digital health products. Prior to joining Toumaz, Alison spent time both in industry as an integrated circuit designer, and also in academia (as Senior Lecturer in Analogue IC Design at Imperial College London). Alison now splits her time between two roles – as CSO at Sensium (now known as The Surgical Company – Connected Care) and as VP of Clinical Engineering at DnaNudge.

Dr. Burdett is a Chartered Engineer, a Fellow of the Institute of Engineering and Technology (FIET) and a Senior Member of the IEEE. She was as a member of the Technical Programme Committee for the IEEE International Solid-State Circuits Conference (ISSCC) from 2009 – 2018, serving as European Regional Chair 2012 – 2014 and Technical Program Chair for ISSCC 2018. She served as Guest Editor of the IEEE Journal of Solid-State Circuits (JSSC), Special Issue on ISSCC-2012, and has been an Associate Editor of IEEE Transactions on Biomedical Circuits and Systems (TBioCAS) since 2008.

Alison is a member of the UK Engineering and Physical Sciences Research Council (EPSRC) Strategic Advisory Network, and a Visiting Researcher at the Institute of Biomedical Engineering, Imperial College. She has over 80 peer-reviewed publications and is a named inventor on over 20 patents.

Panelists:



Rituparna Mandal, *MediaTek, India*

Rituparna Mandal is the General Manager of MediaTek Bangalore. In addition, she is the Director of the Advanced Technology team where she is responsible for foundation IP and advanced CPU designs across MediaTek products.

Rituparna is a B. Tech. in Electronics Engineering from Jadavpur University. She has over two decades of experience in the semiconductor industry.

Driven by passion for leadership and innovation, Rituparna started Immensa Semiconductors and created foundation IP portfolio in leading edge technologies across top foundries, as well as worked with several Tier-1 companies to develop custom IP for them. In 2015, Immensa Semiconductors was acquired by MediaTek.

Rituparna started her career in Texas Instruments and worked for 15 years across digital circuit design, foundation IP and flash technology development where she was responsible for several WW teams.



Matheus Moreira, *Chronos Tech, CA*

Matheus Moreira dedicated 9 years of his life working with research and in the last 5 years he has been working in industry applying his scientific knowledge to technology products. He is currently a Technical Director at Chronos Tech and before that he worked as a Professor and Research Fellow. Matheus is an expert in asynchronous circuits and systems design and is well versed in many aspects of VLSI design. He holds a Ph.D. in Computer Science, is the inventor of various US patents, has published 80 scientific articles and is the recipient of IEEE and ACM international awards.



Dante Muratore, *Stanford, CA*

Dante Muratore received the B.Sc. degree and the M.Sc. degree in Electrical Engineering from Politecnico of Turin, Italy in 2012 and 2013, respectively. He received the Ph.D. degree in Microelectronics from University of Pavia, Italy in 2017 in the Integrated Microsystems Lab. From 2015 to 2016 he was a Visiting Scholar at Microsystems Technology labs at the Massachusetts Institute of Technology, USA. From 2016 to 2020 he was a Postdoctoral Fellow at Stanford University, USA. He was the recipient of the Wu Tsai Neurosciences Institute Interdisciplinary Scholar Award. As of October 2020, he is an assistant professor in the Bioelectronics group at Delft University of Technology, Netherlands. His research focuses on investigating hardware and system solutions for high-bandwidth brain-machine interfaces that can interact with the nervous system at natural resolution. Currently, he is developing an artificial retina to treat macular degeneration and retinitis pigmentosa in collaboration with researchers at Stanford University, USA.



Aisha Walcott-Bryant, *IBM, Kenya*

Aisha Walcott is a research scientist and manager at IBM Research Africa - Nairobi, Kenya. She leads a team of research scientists and engineers in the development of novel innovations in the Future of Health and Climate. She and her team leverage AI, Blockchain, and other technologies to create solutions to transform Health Systems, provide new tools for Population Health, and develop systems to support Water Access and Management particularly for emerging countries. When Aisha joined the IBM Research Africa lab, she led the research efforts to improve mobility and transportation in developing cities. She and her team developed innovative intelligent transportation systems data capture methods and analytical tools, to provide computational understanding about the local driving and infrastructure context. Aisha earned her PhD in the Electrical Engineering and Computer Science Department at MIT.



Seng-Pang (Ben) U, *Synopsys Macau & University of Macau*

Seng-Pan U (Ben) received the dual Ph.D. (Hons.) degrees from the University of Macau (UM) and the Instituto Superior Técnico (IST), Portugal in 2002 and 2004 respectively.

He is one of the pioneers and leaders with transformational impact and contributions on the development of the SSC design research activities in both academe and industry in Macau. Currently, he is Deputy Director of State-Key Laboratory of Analog & Mixed-Signal VLSI, Visiting Professor of FST of UM. He is also the co-founder, currently corporate R&D Director and Site General Manager of Synopsys Macau Ltd (Former Chipidea Microelectronics Macau). He is also the appointed member of the S&T Commission of China Ministry of Education and Macau S&T committee.

He is currently IEEE Fellow. He founded SSCS Macau chapter, and as the Chairman received the 2012 SSCS Outstanding Chapter Award. He is the SSCS Fellow Evaluation Committee member (2016-18). He was IEEE SSCS Distinguished Lecturer (2014-15), A-SSCC 2013, ISSCC 2018 and ISCAS 2018 Tutorial Speaker.

He was ISSCC ITPC and China country representative (2014-18). He is also the A-SSCC subcommittee Chair (2016-18), and the Organization Chair of A-SSCC 2019 in Macau. He is also the Vice Council President of China Semiconductor Industry Association IC Design Branch (CSIA-ICCAD), Council Co-President of Guangdong-HK-Macao Greater Bay Area Semiconductor Industry Alliance, Founder & Council President of Macau Association of Microelectronics, He co-authored 220+ publications, 5 books and co-held 13 US patents. He is the co-recipient of the ISSCC Takuo Sugano Award (2017) and ESSCIRC Best paper award (2014), and he is also the advisor for 30+ student awards, including SSCS Pre-doc Achievement Award, ISSCC Silk-Road Award, A-SSCC Student Design Contest and etc.

He was also elected as the "Scientific Chinese of the Year 2012," He received the HLHL S&T Innovation Award (2010), National S&T Progress Award (2011), 9 Biennale Macau S&T Award (2012-20), and Research Achievement Gold Award and Enterprise Innovation Award in the first Business Award of Macau (2013). In recognition of his contribution in academic research & industrial development, he was awarded by Macau SAR government the Honorary Title of Value in 2010.