

# IEEE Joint CSS-IMS Kolkata Chapter, India

organizes Webinar on:

## Algorithms and Architectures for Remote Health Monitoring using Wearable Sensors

August 22, 2020, 19:00 Hrs. (Indian Standard Time, GMT+5:30)

### Outline of the talk:

- CVD monitoring (using ECG, PPG) and lifestyle/activity monitoring (IMU sensors)
- Algorithms: Time-domain/Time-frequency domain signal processing, Machine learning, Reinforcement learning
- Hardware: Algorithm-to-architecture mapping, FPGA, ASIC implementation



Dr. Dwaipayan Biswas  
Researcher, Digital IC  
Design for Biomedical  
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IMEC, Belgium

**Speaker:** **Dwaipayan Biswas** received his MSc in System on Chip in 2011 and his PhD in Electrical Engineering in 2015 from the University of Southampton (UoS), UK. During 2011–2015, he was involved with three European Union funded projects, namely Chiron, StrokeBack, and PLEASED. His research focused on developing low-complexity algorithms and architecture design targeting low-power VLSI implementation.

During 2015–2016, he went on to work as a post-doctoral research fellow at UoS in the projects funded by the Engineering and Physical Sciences Research Council (EPSRC), namely, Refresh and Prime. He worked on smart office design based on cognitive monitoring and energy optimization for multi-core embedded platforms. In November 2016, he joined IMEC, Belgium, as a researcher on digital IC design for bio- medical applications. He has been working on digital front ends for low-power biomedical sensor readouts aimed at pervasive health monitoring. Further, he has been actively involved in embedded algorithm–architecture development for motion artifact reduction during ambulatory sensing. His research interests include low-power VLSI design, biomedical signal processing, machine learning, brain computer interface, and computer architecture. He has authored over 40 peer-reviewed articles including journals, conference publications, and book chapters.

**Participants:** This webinar will be most effective for the Masters and doctoral students as well as researchers having interest on biomedical Instrumentation, low power computing, embedded systems, microelectronics and artificial intelligence. Seats are limited. Preference will be given to IEEE members.

**Registration Fee:** NIL.

Registration Link: [Click here](#)

Registration will be confirmed by August 19, 2020 and link will be provided to selected candidates only.

More information will be available at:

[https://ewh.ieee.org/r10/calcutta/css\\_ims/index.html](https://ewh.ieee.org/r10/calcutta/css_ims/index.html)