

Computational Neuroscience Workshop

15.12.2025 - 19.12.2025 | 09.00 AM - 04.00 PM EAT

DAY 1 | Monday, 15th December

9:00 AM – 10:00 AM: Computational Neuroscience Workshop Opening.

Speaker: Dr Kebaso Sianyo. | University of Nairobi.

10:00 AM – 12:00 PM: Technical Tutorial

Facilitator: Workshop Technical Team

12:00 PM – 02:00 PM: Lunch Break

02:00 PM – 03:00 PM: Brain Mapping

Speaker: Slobodan Tanakovic | g.tec medical engineering GmbH Austria.

03:00 PM – 04:00 PM: Technical Tutorial

Facilitator: Workshop Technical Team

04:00 PM – 07:00 PM: Long Break

07:00 PM – 08:00 PM: Neuroscience Fireside Chat

Speaker: Dr David Andai, MD, MsC | AKU Brain and Mind Institute

DAY 2 | Tuesday, 16th December

9:00 AM – 10:30 AM: Technical Tutorial

Facilitator: Workshop Technical Team

10.30 AM – 11:00 AM: Coffee Break

11.00AM – 01:00 PM: Brain Stimulation

Speaker: Dr Ornella Dakwar | The Hebrew University of Jerusalem

01:00 PM – 02:00 PM: Lunch Break

02:00 PM – 04:00 PM: Technical Tutorial

Facilitator: Workshop Technical Team

**04:00 PM – 05:00 PM: Neuroplasticity in Action: Harnessing the Brain's
Adaptive Potential in Neurorehabilitation.**

Speaker: Dr Zainab DPT, MS- Neuromuscular Rehabilitation | Abu Dhabi

08:00 PM – 10:00 PM: (Optional) Daily Recap

Facilitator: Workshop Technical Team

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Computational Neuroscience Workshop

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DAY 3 | Wednesday 17th December

9:00 AM – 10:00 AM: Technical Tutorial

Facilitator: Workshop Technical Team

10:00 AM – 11:00 PM: IEEE EMBS(Engineering in Medicine and Biology Society)

Speaker: Jackson Mugwe | Biomedical Engineering, Kenyatta University.

11:00 AM – 11:30 PM: Coffee Break

11:30 AM – 12:30 PM: A Machine Learning Pipeline for EEG Analysis

Speaker: Hadi Bagheri | Graduate Researcher, University of Tabriz

12.30PM – 02:00 PM: Lunch Break

02.00PM - 03.00 PM: Epilepsy Presentation

Speaker: Alan Tanui

03:00 PM – 04:00 PM: Technical Tutorial

Facilitator: Workshop Technical Team

08:00 PM – 10:00 PM: (Optional) Daily Recap

Facilitator: Workshop Technical Team

DAY 4 | Thursday, 18th December

9:00 AM – 10:00 AM: Technical Tutorial

Facilitator: Workshop Technical Team

10.00 AM – 12:00 PM: Brain-Computer Interfaces: From Neural Biology to Real-Time Clinical Systems

Speaker: Prof Ravichander Janapati | SR University, Warangal, Telangana, India

12:00 PM – 02:00 PM: Lunch Break

02:00 PM – 04:00 PM: Technical Tutorial

Facilitator: Workshop Technical Team

08:00 PM – 10:00 PM: (Optional) Daily Recap

Facilitator: Workshop Technical Team

Computational Neuroscience Workshop

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DAY 5| Friday, 19th December

9:00 AM – 11:30 AM: Technical Tutorial

Facilitator: Workshop Technical Team

11:30 AM – 12:00 PM: Coffee Break

12:00 PM – 01:00 PM: Why Simulate the Brain? The future of Brain-scale models.

Speaker: Prof Gaute Einovell | Norwegian University of Life Sciences & University of Oslo.

01:00PM - 02:00PM: Lunch Break

02:00 PM - 03.00PM: Neuromorphic Computing

Speaker: Fidel Makatia, HSC, MIEEE | Texas A&M University, Texas, USA

03:00 PM – 04:00 PM: Closing Ceremony

Facilitator: Workshop Organizing Team

Organizing Partners



Computational Neuroscience Workshop

Speakers



Dr Ornella Dakwar

Clinical Neuroscientist

Dr Ornella is a clinical neuroscientist specializing in non-invasive (tRNS, tDCS) and invasive brain stimulation (DBS), with a focus on the neural correlates of cognition and clinical symptoms.

She has led major neurotechnology projects and clinical research across academia, hospitals, and industry. At InnoSphere and Alpha Omega Engineering, she developed neuromodulation protocols, advanced electrophysiological analysis and supported neurotechnology innovation.

Her earlier role as Deputy Head of the Child Development & Rehabilitation Department at the Israeli Ministry of Health(2013-2018) involved leading national clinical and rehabilitation programs. She has managed clinical trials and translational neuroscience research since 2017.

Prof Ravichander Janapati

Professor of Engineering, SR University, India

He is a Professor in the Department of Electronics and Communication Engineering and the Associate Dean, School of Computer Science & Artificial Intelligence at SR University, Warangal, Telangana, India.. His interests are in Brain Computer Interfacing, Biomedical Signal Processing, Machine Learning, Artificial Intelligence, Wireless Sensor Networks.



Hadi Bagheri

Researcher in Cognitive Psychology

Hadi is a graduate researcher in Cognitive Psychology at the Faculty of Neuroscience, University of Tabriz. His research focuses on Computational Neuroscience and the intersection of Machine Learning with brain signal analysis.

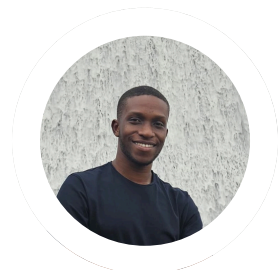
Currently, he is investigating the application of Deep Learning architectures (CNNs) and Support Vector Machines (SVMs) to decode complex cognitive patterns from EEG data.

In addition to his academic work, Hadi is the founder of "Pix Teb", a specialized medical photography business. He is passionate about developing practical, end-to-end AI workflows for healthcare applications, particularly in seizure detection and BCI systems.

Dr David Andai, MD, MSc

AKU Brain and Mind Institute

A graduate of JKUAT, and has an MPH in International Global Health. He is a Research Assistant: Brain and Mind Institute, Aga Khan University. He is the co-founder of Afiadata, a startup focused on health data science skills among medics. He is involved in ML/AI applications, imaging and wearable data analysis. He has a particular interest in mental health and neuroscience research.



Slobodan Tanackovic

g.tec Medical Engineering GmbH

Slobodan Tanackovic has an engineering and clinical neurophysiology technical background. He had informal training in electroencephalography and evoked potentials. Slobodan was part of the epilepsy surgery program at the University Hospital of Coimbra, Portugal. He has an extensive experience in intra-operative neuromonitoring from Portugal and England. Slobodan joined g.tec medical engineering in 2018. He is a brain-computer interface (BCI) and neuroscience enthusiast who continuously participates in g.tec's education plan.

Computational Neuroscience Workshop

Speakers



Fidel Makatia, HSC, MIEEE

Analog & Mixed Signal IC Design Engineer

Fidel is a Graduate Research Assistant at Texas A&M University. He works across semiconductors, AI acceleration, System-on-chip(SoC) design, high-speed interconnects and edge AI systems. He is driven by a mission to turn deep technical innovation into real-world solutions that empower communities.

He is a co-author of "A Short History of Circuits and Systems", 2nd Edition.

He is a 2020 United Nations Person of the Year Award recipient for being the principal inventor of the TibaVent ventilator responding to COVID-19 pandemic.



Prof Gaute Einevoll

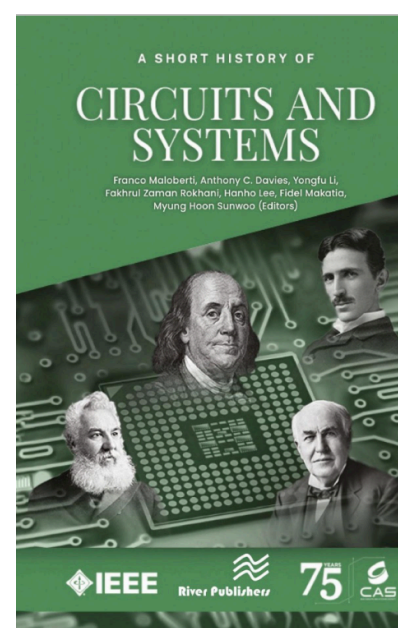
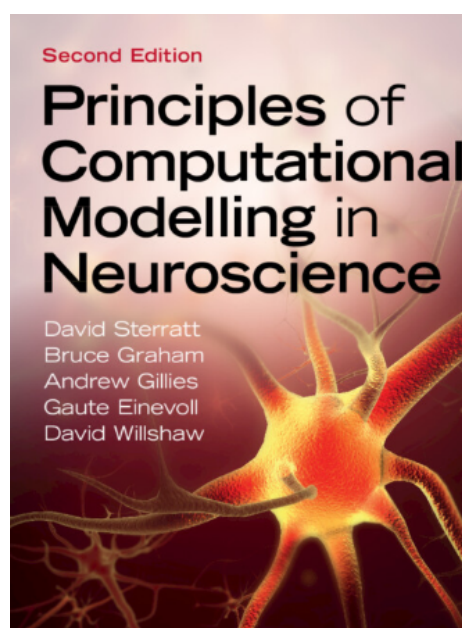
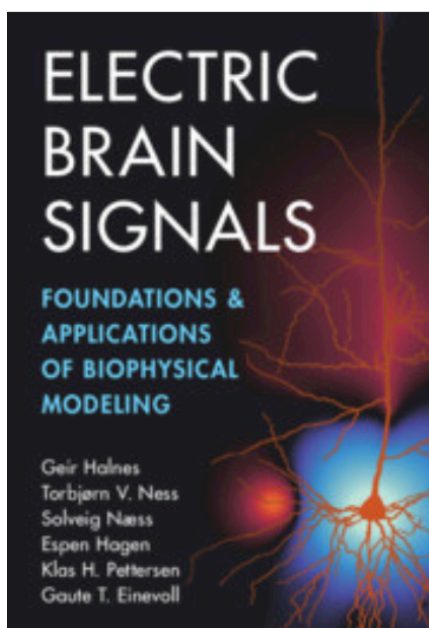
Professor of Physics

Prof Gaute is a professor of physics at the Norwegian University of Life Sciences and the University of Oslo working on brain physics/computational neuroscience, in particular, physics-type modelling of nerve cells, networks of nerve cells, brain tissue, brain signals and brain stimulation.

He is a co-author of "Electric Brain Signals"(Cambridge, 2024) and "Principles of Computational Modelling in Neuroscience", 2nd ed. (Cambridge, 2023).

He also produces the "Theoretical Neuroscience Podcast".

Authored Books



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