



A 1-Week Workshop

AI-APMED 2022

NIT Rourkela



Artificial Intelligence (AI) Aided Personalized Medicine and Drug Delivery

December 12-16, 2022

Resource Person

Prof. Rohit Srivastav, Professor

IIT Bombay, India

Dr. Debasis Das,

Medtronic Inc. India

Prof. Tony Cass

Imperial College London.

Prof. Pantelis Georgiou

Imperial College London.

Dr. Jayanta Ku. Panda

SCB Medical College And Hospital, Cuttack

Dr. Pau Herrero Vinas

Roche

Prof. Marc Breton

University of Virginia

Pranav Vempati,

CEO, KalArm .

Prof. Shovan Barma

IIT Guwahati

Dr. Tim Constandinou

Imperial College London

Dr. Konstantin Nikolic

University of West London

Dr. Sashank Sirsi

University of Texas at Dallas

Dr. Prateek Prasanna

Stony Brook University

Mr. Anirudh Chaturvedi

Emerging Business

Opportunities Manager, Stryker

Prof. Kunal Pal

NIT Rourkela

Prof. Praseon Kumar

NIT Rourkela

Resource Person

Prof. Bala Chakravarthy Neelapu

NIT Rourkela

Prof. Earu Banoth

NIT Rourkela

Program Details

This High-End Workshop (Karyashala) titled “AI-APMED: Artificial Intelligence (AI) Aided Personalized Medicine and Drug Delivery” is aimed towards introducing young researchers to new therapeutic interventions in the domain of personalized medicine and drug, especially those ones which have been successfully translated into products and are available to patients. Emerging therapeutics such as Artificial Pancreas and Electroceuticals have generated huge interest among researchers and medical industry. AI and biosensors play a crucial role in enabling this technology to become increasing self-reliant while shifting the burden of disease management from patients to devices.

This workshop is planned in order to create a platform for discussion and exchange of knowledge between participants and leading experts, industry professionals, entrepreneurs who are working at the interface of these areas.

Sessions

1. Biosensors for Personalised Medicine.
2. AI for Personalised Diabetes Management
3. Role of AI in Next Generation neurotherapeutics & neuroprosthetics.
4. Image Guided Drug Delivery and Therapeutics
5. Drug delivery Microsystems (with demo sessions).

About the Department

The Department of Biotechnology and Medical Engineering was established in 2007. The department is presently offering B.Tech., M.Tech. and Ph.D. degree in Biotechnology and Medical Engineering. The faculty members have diverse research interests and they conduct both basic and applied research in diverse areas like Cell & Molecular Engineering, Tissue Engineering & Biomaterials, Bioprocess Engineering, Environmental & Plant Biotechnology, Biomechanics & Biotransport Engineering, Medical Electronics & Instrumentation etc.

Organizing Committee

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Prof. K. Umamheshwar Rao

Director, NIT Rourkela

Chairman & Co-Convenor

Prof. Kunal Pal,

HOD, BM

Convenor

Prof. Mirza Khalid Baig

Co-Convenor

Prof. Praseon Kumar

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Prof. S. Paul

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Prof. D. Verma

Prof. K. Dutta

Prof. N. Patra

Prof. R. K. Awari

Prof. B. C. Neelapu

Prof. M. K. Gupta

Prof. A. Thirugnanam

Prof. N. Sarkar

Prof. S. S. Ray

Prof. A. Sarkar

Prof. P. Balasubramanian

Prof. Sivaraman J

Prof. E. Banoth

We invite enthusiastic new generation of bioengineers to be a part of this intellectual event with reputed researchers in the field of Bioengineering, doctors, entrepreneurs, incubator managers on a single

platform. We look forward to welcome you at NIT Rourkela on December 12-16, 2022.

Department of Biotechnology and Medical Engineering

National Institute of Technology, Rourkela-769001, Odisha India

NATIONAL INSTITUTE OF TECHNOLOGY, ROURKELA
Department of Biotechnology and Medical Engineering,
AI-APMED: Artificial Intelligence (AI) Aided Personalized Medicine and Drug Delivery
12th Dec, 2022 – 18nd Dec, 2022

Day / Theme	10.00 AM – 11.00 AM	11.30 AM-12.30 PM	2.00 PM-3.00 PM	3.30 PM-4.30 PM
Day 1: <i>Biosensors for Personalised Medicine</i>	Prof. Rohit Srivastav, Biosciences and Bioengineering, IIT Bombay.	Dr. Debasis Das, Medtronic	Prof. Tony Cass, Imperial College London.	Prof. Pantelis Georgiou, Imperial College London.
Day 2: <i>AI for Personalised Diabetes Management</i>	Dr. Jayanta Ku. Panda, SCB Medical College and Hospital.	Dr. Mirza Khalid Baig, NIT Rourkela.	Dr. Pau Herrero Vinas, Algorithm and Decision Support Lead, Roche Diabetes	Prof. Marc Breton, Associate Professor of Research, Centre for Diabetes Technology , University of Virginia.
Day 3: <i>Role of AI in Next Generation neurotherapeutics & neuroprosthetics</i>	Pranav Vempati, KalArm	Prof. Shovan Barma, IIIT Guwahati.	Dr. Tim Constandinou, Imperial College London.	Dr. Konstantin Nikolic, University of West London.
Day 4: <i>Image Guided Drug Delivery and Therapeutics</i>	Dr. Sashank Sirsi, University of Texas at Dallas.	Dr. Pratik Prasanna, Stonybrook University	Dr. Rachit Agarwal, Assistant Professor, BioSystems Science and Engineering, Indian Institute of Science, Bangalore, India	Prof. Bala Chakravarthy Neelapu, Assistant Professor, Dept. of Biotech. And Med. Eng., NIT Rourkela
Day 5: <i>Drug delivery Microsystems with live demo sessions</i>	Prof. Kunal Pal, NIT Rourkela	Dr. Prasoon Kumar, NIT Rourkela	Prof. Earu Banoth, NIT Rourkela	<u>Demo Sessions</u> KalArm, Medtronic Demo (Bionic Arm, Insulin Pump)