Indo-Hungarian Joint Workshop on Health Care Applications for Rehabilitation (HeCARe – 2022)

May 26, 2022

Coordinated by

CSIR-CSIO **OMINT-NIMR** **BME**

Organized by

CSIR-Central Scientific Instruments Organisation
Sector 30-C, Chandigarh

Admission

Target Audience: Engineering & Medicine (Master's and PhD Students, Scientists & Doctors).

Lectures and materials: All the presentations and lectures will be shared with the attendees.

Registration fees: Registration is free for the participants. However, the participants must register themselves online. Participation certificate (soft copy) will be issued to all the attendees.

The registration link will be opened until the 24th May, 2022.

The link for the online workshop will be available after the registration period is over.

Note: The workshop may get postponed if the number of registrations are below the planned intake capacity of the participants.

For details, contact:

hecare2022@gmail.com

Link for online registration:
https://forms.gle/Yu4TBTY7WorNd4wJ6

Last Date for Registration: 24th May, 2022.

Chief Patrons

Prof. S. Anantha Ramakrishna
Director
CSIR-CSIO, Chandigarh
Email: director@csio.res.in

Associate Prof. Zoltan Denes
Medical Director
OMINT-NIMR, Budapest
Email:

Coordinating Team

Dr. Prasant K Mahapatra (CSIR-CSIO, India)
Email: prasant22@csio.res.in

Dr. Neelesh Kumar (CSIR-CSIO, India)
Email: neel5278@csio.res.in

Dr. Gabor Fazekas (OMINT-NIMR, Hungary)
Email: fazekas123@t-online.hu

Mr. Andras Toth (BME, Hungary)
Email: toth.andras.gabor@gpk.bme.hu

विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF
SCIENCE & TECHNOLOGY

NATIONAL
RESEARCH, DEVELOPMENT
AND INNOVATION OFFICE

HeCARe – 2022

Rehabilitation is a multidisciplinary field and requires participation from Engineers from various technical backgrounds like electronics, computer science, mechanical, instrumentation etc.; Doctors with different specialties; and Physiotherapists. With advanced tools like robotic systems; biomedical instrumentation and sensors, mechanical equipment assistance, and tool-based analysis for detecting the disability cause for treatment, the rehabilitation process can be more effective. Rehabilitation can prove efficient with the development of therapeutic training and quantification of sensorimotor performance. There is a high demand to develop simpler mechanisms with patient-tailored adaptive control to assist the individuals suffering from motor impairments, due to stroke, spinal cord injuries and other causes. The workshop will cover the knowledge dissemination for the development of intelligent robotic aids, mechanical design and control; and biomedical instrumentation and applications. In the sessions of the workshop, the User and Industry perspective of this technology is also going to be elaborated. The workshop is aimed to create an international network of similar researchers of India and Hungary, for the benefit of human kind.

This workshop is supported by DST, India [‘INT/HUN/P-12/2017 (GAP 416)’] & NRDIO, Hungary [2017-2.3.7-TÉT-IN-2017-00048] under the joint Indian-Hungarian Bilateral Research Project titled “ICT based Tools for Assessment and Improvement of Efficacy of Upper Limb Robotic Rehabilitation”.

HeCARe - 2022

About CSIR-CSIO

Central Scientific Instruments Organisation (CSIO), a constituent unit of Council of Scientific & Industrial Research (CSIR) consisting of 37 laboratories,, is a premier national laboratory dedicated to research, design and development of scientific and industrial instruments. It is a multi-disciplinary and multi-dimensional apex industrial research & development organisation in the country to stimulate growth of Instrument Industry in India covering wide range and applications. With well-equipped laboratories, CSIR-CSIO is contributing substantially towards the growth of the scientific instruments for various industries in the country with high degree of credibility.

About OMINT-NIMR

The National Institute of Locomotor Diseases and Disabilities - National Institute of Medical Rehabilitation (OMINT-NIMR) is an autonomous budgetary body and the supervisory body of the Institute is the Ministry of Human Resources, Hungary. It is one of the firsts gave place to medical rehabilitation and physical medicine undergraduate and postgraduate study programs in Hungary. By the experiences gained over the years OMINT-NIMR works in the certain most necessary topics of rehabilitation including orthopaedics, surgery or amputee rehab, traumatic and spinal cord injuries, hemiplegia, brain injuries, bone and joint infections, TBC, rehabilitation of patients with different disabilities and other procedures or therapy methods.

About BME

The Budapest University of Technology and Economics (BME) is a public higher education institute operating as a central budgetary institution. Its founding regulation has been issued by the Minister of Human Capacities. The university was founded in 1782, being regarded as Hungary’s number one technical higher education institution for nearly 240 years. BME has been offering outstanding professional knowledge and extraordinary technical solutions to respond to various challenges.

Program

Time (IST / CEST)	***Theme***
11:45 / 08:15	Opening Remarks by Director, CSIR-CSIO and Medical Director, OMINT-NIMR
	Introduction to the Workshop Objectives, Participants by Dr Prasant Mahapatra
	Overview of research activities of CSIR-CSIO Biomedical Applications Group by Dr Sanjeev Verma
12:30 / 09:00	Dr Gabor Fazekas (OMINT-NIMR, Budapest) - Robotics for improving upper limb function post-stroke
13:00 / 09:30	Dr Ravibabu Mulaveesala (IIT Delhi) - Novel InfraRed Imaging Modalities and Processing Approaches for Breast Cancer Screening
13:30 / 10:00	Tea/Coffee/Lunch Break
14:10 / 10:40	Mr T Pilissy (BME, Budapest) - Robotics for elderly care
14:40 / 11:10	Dr Sushil Chandra (INMAS, Delhi) - Cognitive Assessment and Enhancement
15:10 / 11:40	Tea/Coffee/Lunch Break
15:50 / 12:20	Dr I Tavaszi (OMINT-NIMR Budapest) - Neglect syndrome in post-stroke conditions: assessment and treatment
16:20 / 12:50	Dr Soumya Saxena (PGIMER, Chandigarh) - Management of Locomotor Impairments in Stroke
16:50 / 13:20	Tea/Coffee Break
17:00 / 13:30	Dr G Tonay (Semmelweis University, Budapest) - Smart services for the improved independence of elderly
17:30 / 14:00	Dr P K Khosala (C-DAC, Mohali) - TELE CONSULTATIONS: Gauging the efficacy of ‘eHealth’ as an effective remedy for Psychiatric Rehabilitation
18:00 / 14:30	Closing Remarks by Dr Neelesh Kumar