ICCAS – Newsletter 03/2020

INNOVATION CENTER
COMPUTER ASSISTED SURGERY

HIGHLIGHT

BMT 2020 WAS A SUCCESS |
September 29 - October 1, 2020 | ICCAS, Leipzig

The first virtual Conference of the German Society for Biomedical Engineering (BMT 2020) was held by ICCAS on September 29th until October 1st, jointly organized together with the VDE. The event, which was certified by the Saxon State Chamber of Medicine (SLÄK) with a total of 18 continuing education points, was opened by a video message of the Federal Minister of Health Jens Spahn. Nearly 600 participants of BMT 2020 mainly technicians and biomedical engineers enjoyed an unprecedented attendance from the clinical sector, exceptionally supported by our clinical colleagues from the Leipzig University Hospital. Artificial Intelligence, Personalized Medicine and the new Medical Device Regulation were among the main subjects of the conference as well as topics from the Active Assisted Living (AAL) Congress and from the VDE BMT YoungNet initiative. Not least, it featured greetings from Saxony's Science Minister Sebastian Gemkow on ICCAS' 15th Anniversary. BMT 2021 – will take place in Hannover.

Video German Minister of Health, Jens Spahn: *Link*
Video Saxon Minister for Science, Sebastian Gemkow: *Link*

VIRTUAL EVENTS

ICCAS TAKES PART AT FRENCH - GERMAN AI-WORKSHOP |
July 3, 2020, virtual

At a joint research workshop on Artificial Intelligence (AI) technologies between the German Federal Ministry of Economics and Energy (BMWi) and the French Ministry for Europe and Foreign Affairs (MEF), Thomas Neumuth gave an impulse talk on the potential of Artificial Intelligence (AI) in healthcare. Discussions on how AI can be helpful in the early detection of epidemics or how it could effectively relieve aid organizations during an epidemic followed.

CONTRIBUTION TO SCADS.AI SOMMER SCHOOL |
July 13, 2020, virtual

The National Centre for Big Data and Artificial Intelligence (ScaDS.AI) held its sixth summer school from 7th to 8th July, at which Thomas Neumuth spoke about the applications of AI in oncology. He elaborated on the prerequisites of AI-supported therapy recommendations for their reliable use during cancer treatment.

LECTURE FOR MEDICAL PHYSICISTS AT AAPM MEETING |
July 15, 2020, virtual

Andreas Melzer held an invited lecture at the Virtual Meeting of the American Association of Physicists in Medicine (AAPM). There, he spoke about focused ultrasound in the context of molecular imaging techniques and their importance for surgical, interventional and radiation therapy procedures in the future.

ANDREAS MELZER WORKS IN SPACE2HEALTH INITIATIVE |
September 2, 2020, vitual

On behalf of the Federal Ministry of Economics and Energy (BMWi), the German Aerospace Center (DLR) organized the launch meeting of the INNOspace network Space2Health. The initiative is now underway with the aim of promoting the transfer of technology between the space and health sectors. Andreas Melzer will work within the steering committee on the translation of medical technology for deep space missions.

©INNOSpace

ROBOT DEMOS FOR MEDICAL PHYSICISTS |
September 9, 2020, virtual

Andreas Melzer jointly organized a DGBMT-Session at this year's 51st Annual Meeting of the German Society for Medical Physics (DGMP) together with Prof. Bernhard Sattler and Prof Ulrich Wolf the two presidents were he hold an invited lecture on state of

©DGMP

the art of Focused Ultrasound in medicine, and Martin Reich gave a talk on novel technologies for MRI-guided interventions developed at ICCAS. Further experts provided insights into the latest research and development of various expert committees and demonstrated medical robot applications from ICCAS and the German Cancer Research Center (DKFZ).

IMI PROJECT GROUP AT CURAC 2020 |
September 18, 2020, virtual

At the annual meeting of the German Society for Computer- and Robot-Assisted Surgery (CURAC 2020), the project group Intraoperative Multimodal Imaging (IMI) presented the results of a new study on the application of hyperspectral imaging (HSI) in biliary tract diseases.

©CURAC

Paper link

THOMAS NEUMUTH SPEAKS ON 5G AND HEALTHCARE DURING AN EU DIRECTORATE GENERAL DEDICATED SESSION |

October 1, 2020, virtual

Thomas Neumuth gave an overview on the application possibilities of 5G technology in the healthcare sector at a virtual event by the CONNECT University initiative. The initiative represents the flagship of the EU Commission's Directorate General on Communication Networks, Content and Technologies (DG Connect) and is intended to serve the expanded needs of EU Institutions pertaining to Digital, in moving from Digital-as-a-service to Digital-as-society.

5G AND HEALTHCARE

©European Commission

RESEARCH

PROJECT POST STROKE MANAGER AT ICCAS

ICCAS welcomes the members of the new research group Biomedical Data Analysis. Within the project Post Stroke Manager financed by the state of Saxony, the scientists will be working on a patient-oriented, digital system that uses everyday communication channels to enable coordinated preventive long-term care of stroke patients.

project link

NEW PROJECT BRAINSAVER

In July, the ProSafeMed - project Brainsaver launched at ICCAS. It aims to develop a non-invasive, multimodal monitoring system that will enable first responders to obtain informative objective feedback on the quality of executed cardiopulmonary resuscitation.

project link

NEW PROJECT VITALS

In September, the BMWi-funded project VITALS took its course. Together with Fritz Stephan GmbH and ITP GmbH, ICCAS' researchers develop a mulitmodal mobile electro impedance tomography/ electrocardiography system for non-invasive monitoring of the respiratory activity and of the patient's heartbeat.
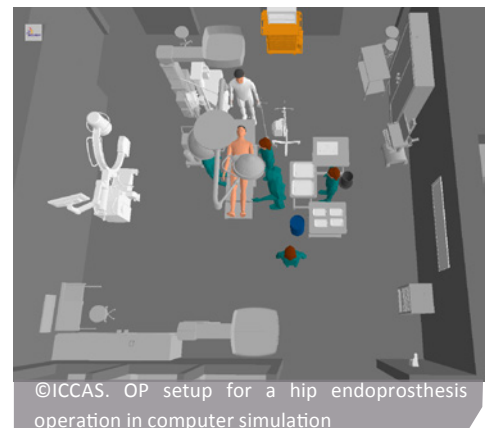
project link

RESEARCH

INTERNATIONAL PUBLICATION ABOUT OPTIMIZATION OF SURGICAL PROCEDURES

A recently published study by ICCAS in cooperation with the Orthopedics Department of the University Hospital Leipzig in the BMC Medical Informatics and Decision Making shows how surgical

©ICCAS. OP setup for a hip endoprosthesis operation in computer simulation

procedures can be optimized. The changes in the operating room led to an improvement in terms of workflows and posture of the hospital staff.

Link to press release (German)

Link to original publication in "BMC Medical Informatics and Decision Making"

For an extensive list of ICCAS' Publications: *List 2020*

HONOR

THOMAS NEUMUTH IS "EXPAMED" MEMBER |
September 16, 2020

Thomas Neumuth has been appointed to the European Commission's expert panel "Expamed", which deals with improved regulation of the approval of medical devices (MDR) and medical devices for in vitro diagnostics (IVDR). It aims to ensure that only safe and effective medical devices are placed on the EU market. The work of the experts includes providing scientific and technical advice to the European Commission, member states and manufacturers.

MEDIA

VIDEO ABOUT INNOVATIVE IMAGING TECHNIQUES IN ABDOMINAL SURGERY AT UKL

Prof. Ines Gockel presents the novel „High-Tech-OP" with integrated hyperspectral imaging (HSI) at the Visceral Surgery Department of Leipzig University Hospital (UKL), which was developed in close cooperation between the clinicians and ICCAS scientists.

Video Link

©UKL

GMDS Video about „ICCAS' Management System für ein mobiles Notfall-Krankenhaus"

In the video of the German Society for Medical Informatics, Biometry and Epidemiology (GMDS), Thomas Neumuth explains the management system for a mobile emergency hospital, in which ICCAS participated in the framework of the EU project European Modular Field Hospital (EUMFH).

Link

MEDIA

ICCAS AT THE SAXON TRANSFER FORUM |
November 3, 2020, Leipzig University

In November, the first Saxon Transfer Forum „TransfERleben" of the innovation platform futureSAX will take place at the Leipzig university campus. During the all-day event, ICCAS will present a hyperspectral imaging method for visceral surgery and share its transfer experiences in an expert panel.

Event Link

JOBS

Please find our vacancies under:
Current vacancies

GEFÖRDERT VOM:
Bundesministerium
für Bildung
und Forschung

ZENTREN FÜR
INNOVATIONSKOMPETENZ
UNTERNEHMEN REGION
Die BMBF-Innovationsinitiative
Neue Länder

UNIVERSITÄT LEIPZIG
Faculty of Medicine