Digital Operating Room - Summer School (DORS) 2014

MEET THE DIGITAL OR

MONDAY
9:00 - 12:00
ARRIVAL AND REGISTRATION

TUESDAY
9:00 - 14:00
SESSION 2: MEET THE EXPERTS
Personalized Operative Medicine

WEDNESDAY
8:00 - 12:00
PRACTICE 2: OR Visit

FRIDAY
9:00 - 10:30
SESSION 5: MEET THE HOSPITAL OPERATOR

10:45 - 12:15
SESSION 6: MEET THE FUTURE

12:15 - 13:00
FAREWELL

TUESDAY
12:00 - 13:00
LUNCH BREAK

WEDNESDAY
13:00 - 18:00
SESSION 3: MEET THE EXPERTS
Processes and Workflows

THURSDAY
14:00 - 15:00
LUNCH BREAK

14:00 - 15:00
PRACTICE 3:
Tech-Lab

15:00 - 21:00
SESSION 7: MEET THE PEER RESEARCHERS
Social Event

MONDAY
12:00 - 13:00
LUNCH BREAK

13:00 - 14:00
WELCOME AND INTRODUCTION

14:00 - 16:00
SESSION 1: Meet the Clinicians

16:00 - 17:00
ATTENDEE POSTERS PRESENTATIONS

18:00 - 21:00
MEET THE PEER RESEARCHERS
Social Event

TUESDAY
14:00 - 15:00
LUNCH BREAK

15:00 - 17:00
PRACTICE 1:
Anatomy and Physiology for Engineers

17:00 - 21:00
PRACTICE 2:
Medical Lab

WEDNESDAY
13:00 - 18:00
SESSION 3: MEET THE EXPERTS
Processes and Workflows

18:30 - 21:00
MEET THE PEER RESEARCHERS
Social Event

THURSDAY
14:00 - 15:00
LUNCH BREAK

15:00 - 21:00
SESSION 7: MEET THE PEER RESEARCHERS
Social Event

18:00 - 21:00
PRACTICE 3:
Tech-Lab

19:30 - 21:00
SESSION 8:
Social Event

FRIDAY
From 13:00
DEPARTURE

VENUE FOR DORS 2014

The school will be held in the city of Leipzig in two exciting venues: in the Felix Klein Lecture Hall of the central university building and in the university library.

CONTACT

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UNIVERSITY OF LEIPZIG
Felix Klein Lecture Hall
Paulinum, Main Building
Augustusplatz 10-11
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22nd - 26th September 2014
Leipzig
Operative medicine is a research field in which the need for medical systems engineering and networked applications is growing rapidly. New technologies need to be integrated into clinical settings that support an optimal surgical treatment for the individual patient. Furthermore, these services and technologies need to be able to interact and communicate with the hospital IT-environment.

The main goal of the Digital Operating Room Summer School (DORS) is to train a new generation of young researchers to bridge the gaps between personalized treatment for patients and the clinicians’ need for useful technological support as well as the challenges on the operator side when trying to establish appropriate IT-infrastructures.

The aim is to deliver a stimulating graduate training course for young researchers and Ph.D. students. The participants will benefit from direct interaction with leading senior researchers in the field of medicine and engineering. Additionally, they will be able to present their own research to get feedback from clinical experts as well as to communicate with their scientific peers in a friendly, constructive environment.

DORS 2014 will be scheduled in 6 main sessions and 3 practical lab courses. The courses will consist of in-depth tutorial-style lectures on state-of-the-art methods and advanced research lectures involving examples and practical applications. Renowned experts will report on their experience from the areas of medical imaging, computer vision, and IT engineering. They will present their view on how digital operating room technologies and their limitations.

Registration: until 31st August 2014
Poster Submission: 15th September 2014
Local Arrangements Notification: 15th September 2014

For registration, please visit www.iccas.de/dors.

**SESSION 1 — MEET THE CLINICIANS**

Senior clinical researchers and surgeons will present their view on medical technologies and state of the art research conducted by engineers. Examples of wins and fails of surgical technologies will be presented and the success criteria discussed. Additionally, a senior technical researcher will present do’s and don’ts when dealing with clinicians and explain how to see issues from a clinical perspective.

**SESSION 2 — MEET THE EXPERTS: PERSONALIZED OPERATIVE MEDICINE**

Session 2 will feature lectures and tutorials on personalized medicine as well as patient-specific surgery. After the introduction into personalized medicine, different aspects of digital patient modeling and its application to operative medicine will be explained.

**SESSION 3 — MEET THE EXPERTS: PROCESS MODELING AND SURGICAL WORKFLOW MANAGEMENT**

Session 3 will focus on intra- and perioperative process modeling, management and execution. Related strategies as well as aspects like cognition-guided surgery and workflow management will be presented along with methods of process analysis and optimization in medicine.

**SESSION 4 — MEET THE EXPERTS: INFRASTRUCTURE AND TECHNICAL STANDARDS**

Session 4 will address technical aspects and standards for systems integration towards the digital operating room as well as software service management. The lectures will focus on state of the art architectures as well as frameworks for computer-assisted procedures and man–machine interaction.

**SESSION 5 — MEET THE HOSPITAL OPERATORS**

Session 5 will examine the viewpoint of hospital operators. Leading representatives of operators will present their role in bringing new technologies into hospital IT and operating rooms. They will cover aspects like budgeting, mid- and long-term investment forecasts, as well as technical requirements for the integration of new technologies such as risk management and approval strategies for medical products.

**SESSION 6 — MEET THE FUTURE**

The final session will outline future technology roadmaps for the digital operating room. Senior technical experts will present their view on how digital operating room infrastructure and technology are expected to advance in the short, medium and long term.