



**Western**  
Biomedical Imaging  
Research Centre

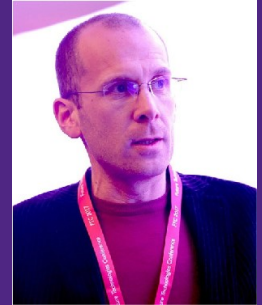
**SEMINAR SERIES**  
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**December 5th, 2019**  
**11am-12 noon**  
**Robarts Research Institute, Room 3240**

## Dr. Vincenzo Ferrari , PhD

Assistant Professor of Biomedical Engineering, Department of Information Engineering, University of Pisa, Italy

**Title: AR for Surgical Guidance: a deepening in HMDs up to the VOSTARS project**

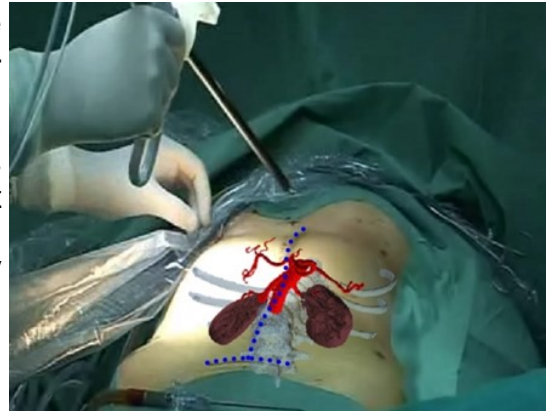


**Abstract:** Patient safety and surgical accuracy can now be significantly improved thanks to the availability of patient-specific information contained in medical images.

Augmented Reality (AR) is considered an ergonomic way to show the patient related information during the procedure, as demonstrated by the hundreds of works published in the last years.

To develop useful AR systems for surgery there are many aspects to take into account from a technical, clinical and perceptual point of view.

During the talk, particular attention will be paid to the use and development of Head-Mounted Displays (HMDs) for surgical navigation. Current limitations in performing manual tasks under direct view using available HMDs will be also described and motivated.



Vincenzo Ferrari received the Ph.D. degree from the University of Pisa. He is currently Assistant Professor of biomedical engineering with the Department of Information Engineering, University of Pisa. He is the author of more than 100 peer-reviewed publications and has five patents. He is the coordinator of the EndoCAS Center for Computer-Assisted Surgery of the University of Pisa. His research interests involve image-guided surgery and simulation, computer vision and augmented reality devices, and applications in medicine. He is involved in several national and international research projects.

## BIRC PARTNERS



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