



Dr. Suraj NAIR
PhD in Computer Science

28B Jalan Lempeng
#29-23 The Triling
Singapore - 128809

suraj.nair@tum-create.edu.sg
phone : +65 85060679

Specialist in Robotics, Vision and Artificial Intelligence.
Experience in Project Management, Team Building, Research Proposal, Technology Transfer, Project Financial planning and Management.

Work Experience

TUMCREATE, Singapore	tum-create.edu.sg
2014 – Present	Head of Cognitive System and Robotics Group
2016 – Present	Head of Modelling and Simulation Group
2014 – Present	Co-PI Investigator for the SERC Industrial Robotics Programme
2014 – 2015	Senior Research Fellow
fortiss GmbH, Germany	fortiss.org
2013 – 2014	Research Fellow and project Leader for European Union FP7 Project SMERobotics
2012 – 2013	Research Associate
Technical University of Munich, Germany	tum.de
Jan 2013 – Dec 2013	Research Fellow in DFG project OR.NET
May 2007 – Dec 2011	Research Associate in Robotics and Embedded Systems Group
Philips Research Laboratories, The Netherlands	philips.com
Jul 2006 – Mar 2007	Research Student in the Video Processing and Analysis Group
Orange, India (now Vodafone)	
Jan 2005 – Mar 2005	GPRS Engineer in Value Added Services Department

Education

Doctor of Philosophy	Technical University of Munich, Germany
May 2007 – Oct 2012	PhD (Magna Cum laude) in Computer Science with specialization in Robotics, Vision and Artificial Intelligence. Advisor: Prof. Dr. -Ing. habil Alois Knoll Reviewer: Prof. Dr. Dieter Fox
Master of Science	University of Jönköping, Sweden
Aug 2005 – April 2007	School of Engineering Specialization in Embedded Electronics and Computer Systems Distinction
Bachelor of Engineering	University of Pune, India
Aug 2000 – Jun 2004	Specialization in Electronics and Telecommunications First Class with Distinction

Selective Projects

2014 – Present: CAAS Aviation Challenge 2: Robotic Automation for Air Cargo Handling
2016 – Present: TUMCREATE Phase 2: Towards the Ultimate Public Transport System
2014 – Present: Intelligent Transportation Lab, Singapore (I2R, Continental AG and TUMCREATE)
2013 – 2016: SERC Industrial Robotics Programme, Singapore
2012 – 2014: European Union FP7: SMERobotics
2012 – 2013: German DFG: OR.NET Plug and Play Systems for Operation Theatres

2010 – 2013: iRAMIS: Medical Robot for In-Vitreo Retinal Surgery
2007 – 2008: CoTeSys Germany: iTrackU Image Understanding and Tracking
2007 – 2008: CoTeSys Germany: JAHIR Joint Action for Humans and Industrial Robots
2008 – 2009: OpenTL: Open Visual Tracking Library
2006 – 2007: Philips Research Laboratories: Low Cost Gaze Tracking System

Industry Collaborations

Selective (Non Exhaustive List)

BMW, Continental, KUKA, Stäubli, Comau S.p.A, Güdel AG, Schmalz, ARS Electronica, Robot Equipment Corporation

Awards and Grants

2015 – 2017 : CAAS Aviation Challenge 2 Grant, 2 Million SGD

2016 – 2021: Lead the proposal writing activity for the Modelling and Simulation group at TUMCREATE to secure the Phase 2 funding

2014 – Present: Biomedical Imaging & Informatics - European Research and Training Initiative (BERTI). Involved in framing the proposal for Work Package 6: Health Care Robotics

2010 – 2013: Grant for setting up and research team and conducting a research on a Robotics System for In-Vitreo Retinal Surgery. A pre-clinical trial completed working prototype has been developed for further commercialization. 350,000.00 Eur.

2010: First Price in the Medical Robotics Concept Development at the TUM-GSISH and University of Tokyo Summer School

Publications

For a complete list please visit <http://www6.in.tum.de/Main/Nair>

Software Skills

(Non-exhaustive list)

Programming: C/C++, JAVA, Python, JavaScript, VHDL, SystemC, Matlab, Latex, ABB Rapid.

Tools: ABB Robotstudio, Simulink, SolidWorks, Blender, GIT, SVN

Platforms: Linux, RTOS, Windows

Management: MS Project, Agile Methods

Languages

English – Professional

Hindi – Native

Marathi – Native

Malayalam – Mother tongue

German - Intermediate

References

Prof. Dr. Alois Knoll

Technische Universität München
Germany
knoll@in.tum.de

Prof. Dr. Maria-Elisabeth Michel-Beyerle

Nanyang Technological University
Singapore
mariaelisabeth@ntu.edu.sg