

Vaibhav Kulkarni

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Switzerland

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RESEARCH INTERESTS Signal Processing, Machine Learning, Software Defined Networking, Distributed Systems and Wireless Networks

EDUCATION **University of Lausanne, Switzerland** 2015-Present
Ph.D. Candidate, Information Systems
Advisor: Prof. Benoît Garbinato

Technische Universiteit Eindhoven, Netherlands 2014-2015
M.Sc.(Honors), Embedded Systems
Advisor: Dr. Majid Nabi

Technische Universität Berlin, Germany 2013-2015
M.Sc.(Honors), Information Systems & Communication Technology
Advisor: Dr. Vlado Handziski

EIT Digital 2013-2015
Minor, Business and Entrepreneurship
Advisor: Dr. Raymond Opdenakker

Goa College of Engineering, Goa University 2008-2012
B.Eng., Electronics & Telecommunication
Advisor: Chetan Desai

RESEARCH EXPERIENCE **Privacy Aware Mobility Prediction** November 2015
UNIL, Lausanne-Switzerland

Facilitating Wireless Coexistence Research August 2015
ETH Zürich, Switzerland
Master Thesis (Advisor: Prof. Friedemann Mattern)

Trickle Scanning: An Energy Efficient Multi-Channel Communication Approach in Low Power Networks December 2014
University of Twente, Netherlands

An Experimental Study of Controllable Interference Generation Techniques in IEEE 802.15.4 Networks September 2014
TU Eindhoven, Netherlands

Virtual Instrument Control using WSN March 2014
TU Berlin, Germany

Indoor Localization and Surveying for Mobile Swarm Robots 2012
Goa University

**Autonomous Underwater Vehicle (AUV) for
Modeling Ocean Currents**

2011

Project Intern

National Institute of Oceanography, Goa India

PUBLICATIONS

V.Kulkarni*, A. Moro*, B. Garbinato. "MobiDict–A Mobility Prediction System Leveraging Realtime Location Data Streams". In 7th ACM SIGSPATIAL International Workshop on GeoStreaming (IWGS) 2016, San Fransisco, California, USA

V.Kulkarni*, A.Moro*, B.Garbinato."Poster:A Mobility Prediction System Leveraging Realtime Location Data Streams". In Proceedings of the 22nd ACM International Conference on Mobile Computing and Networking (MobiCom'16), New York, USA

A. Hithnawi, V. Kulkarni, S. Li, H. Shafagh."Controlled Interference Generation for Wireless Coexistence Research". In SRIF-ACM Mobicom 2015

TEACHING

Teaching Assistant, UNIL

- Algorithms and Computational Thinking Winter 2016
- Introduction to Distributed Systems Winter 2016
- Introduction to Distributed Systems Winter 2015

Teaching Assistant, Goa University

2012

- Embedded Systems
- Peripheral Devices and Interfacing
- VLSI Design

**WORK
EXPERIENCE**

Work Student, Inventrom Robotics

2009-2011

- Design and Development of Embedded Platforms for all terrain, swarm and marine robots
- Quality Assurance, Testing of Embedded Boards used in Autonomous Surface Vehicles

AWARDS

- Zeno Karl Schindler Foundation, Geneva - Switzerland: Master Thesis Grant
- EIT ICT Labs, Stockholm: Mobility Scholarship
- Winner, Business Plan Challenge: Aalto University, Helsinki
- Goa Scholars: Scholarship for Master's Education, Govt. of India
- Bachelor Thesis Grant: Dept. of Science & Technology, Goa

**TECHNICAL
SKILLS**

Programming languages: C/C++, Python, nesC, Bash

Operating Systems: UNIX, Contiki OS, Tiny OS

Implementation Platforms:

- Simulation: Cooja, OMNeT++, Matlab
- Software Defined Radios: USRP, GNURadio
- Embedded Development: x86, 8051, MSP430, AM335x, BCM2835, AVR & PIC
- VHDL, Xilinx ISE Tools, Xilinx EDK

MISC

Languages: English(Fluent), German (Limited Working Proficiency), French (Basic), Hindi (Native)

Extra Curricular: Initiated the Robotics Awareness Program to spread technology awareness in rural India