

# Bushra Sadia

bushra.saadia@gmail.com | (+49) 178.671.8247 | Frankfurt, Germany

## EDUCATION

### KOÇ UNIVERSITY

#### PH.D. IN COMPUTATIONAL SCIENCES AND ENGINEERING

2015 - 2021 | Istanbul, TR

Conc. Surface Haptics & Tactile sensing.

### NUST

#### MS IN INFORMATION TECHNOLOGY

2014 | Islamabad, PK

Conc. in Laparoscopic surgical simulations & Bio-medical Imaging.

### PIEAS

#### BS IN COMPUTER & INFORMATION SCIENCES

2008 | Islamabad, PK

Conc. in Computational Intelligence & Multi-objective optimization

## LINKS

Skype: bushra.sadia

LinkedIn:// bushrasadia

Google Scholar:// Bushra Sadia

## LANGUAGES

English: Professional

German: Professional

Turkish: Basic

## COURSEWORK

### POST-GRADUATE

Computer Vision

Robotics

Computer Graphics

### GRADUATE

Photonic Networks

Network Switching & Routing

Graph Theory

### UNDER-GRADUATE

Computational Intelligence

Operations Research

## SKILLS

### PROGRAMMING

Julia • Matlab • Python • C/C++ • C# • Shell • R

### OTHERS

Unity 3D • Git • iOS • Android • MySQL

## EXPERIENCE

### KOÇ UNIVERSITY | PH.D.

2015 – 2021 | Istanbul, TR

- Responsible for investigating how to render realistic tactile buttons and shapes on touchscreens using novel surface haptics technologies?
- Collecting data from the physical buttons, analyze them, and create their digital counterpart.
- Testing and validating the digital buttons.
- Preparing psychophysical experiments for user studies and conducting experiment with the user.
- Analyzing the results collected from psychophysical experiments and writing scientific articles.

### KOÇ UNIVERSITY | TEACHING ASSISTANT

2015 – 2019 | Istanbul, TR

- TA for the courses on Statistics and Robotics, with responsibilities including conducting problem sessions for students and helping lecturers in course organizations and student evaluation.

### NUST (TECHNOLOGY INCUBATION CENTER) | MANAGER SIMULATOR

Mar 2015 – Jun 2015 | Islamabad, PK

- As a co-founding engineer, had to wear many hats, from being a simulation designer and software engineer writing device drivers to a marketing manager.
- Development of Intelligent Box Trainer & Simulator GUI,
- Leading marketing with creation of marketing material like brochures, user manuals etc.

### NUST (SEECs) | SOFTWARE ENGINEER

Jun 2011 – Mar 2015 | Islamabad, PK

- Developed new modules related to medical simulation for surgical simulator using C++.
- Integrated said modules with Simulation Open Framework Architecture (SOFA),
- RnD on laparoscopic surgery and surgical simulators, with focus on patient specific surgical simulators,
- Analysis of CT scans for segmentation of organs
- Developed patient specific anatomical training application

## AWARDS

2015-2019 Full Scholarship at Koç University, Istanbul, Turkey

2015 Finalist at 4<sup>th</sup> TET PROJE BAHARI, Istanbul, Turkey

2014 Runner-up at REC@nnect Startup Boot Camp - Microsoft Innovation Center Nepal

2014 Winner (Smart Surgicol) as Shell Tameer Awards

2013 Winner at TIE International Business Plan Competition, Pakistan Chapter

2013 NUST High Achiever Award

2013 Winner IBA Invent Entrepreneurial Challenge

2013 Bronze Medal for paper titled,

“Using Medical Imaging Techniques for Making Realistic Simulations” at International Surgical Conference

2012 Nominee for best paper Gold Medal at International Surgical Conference