

# Shasa Antao

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## EDUCATION

### AMRITA UNIVERSITY

B.TECH MECHANICAL ENGINEERING  
Bangalore, Karnataka India

August 2013 - May 2017  
CUM. GPA: 7.57/10.00

## WORK EXPERIENCE

**PRODUCT DEVELOPMENT ENGINEER | ROBERT BOSCH ENGINEERING & BUSINESS SOLUTIONS PVT. LTD. |**  
SEPTEMBER 2017 – PRESENT | COIMBATORE, INDIA

- Principle investigator for Innovation projects within the New Product Development team
- Applying Business model innovation and Customer Development techniques to potential ideas
- **Current Project:** Development of a Deep Learning based Aerial Crop Protector that can identify and precisely spray weeds
- **Current Project:** Setting up an Internal start-up incubated at Bosch using a customized accelerator program from University of California, Berkeley
- **Current Project:** Design of an Innovative knee support device using multiple stratified spiderweb-like structures
- **Current Project:** Formulation of a Deep Learning algorithm in an Intelligent health companion to track changes in facial features and predict health problems
- Submission of above three projects as Invention reports which are in the process of review for patenting

**UNDERGRADUATE RESEARCHER | AMRITA UNIVERSITY | FEBRUARY 2015 – JULY 2017 | BANGALORE, INDIA**

- Successfully validated passive balancing using counterweights in a prototype of a novel orientation sensing mechanism
- **Publication:** “Applications of a 3-Revolute Orientation Sensing Mechanism (3-ROSM) in Controlling a Camera”; **Antao, S. A.**, Nair, V. S., Chittawadigi, R. G., 5<sup>th</sup> IFToMM International Symposium on Robotics & Mechatronics (ISRM2017), Sydney, Australia, (2017)
- **Publication:** “Methodology to Determine Counterweights for Passive Balancing of a 3-R Orientation Sensing Mechanism using Hanging Method”; **Antao, S. A.**, Nair, V. S., Chittawadigi, R. G., 18<sup>th</sup> National and 3<sup>rd</sup> International conferences on Machines and Mechanisms (iNaCoMM2017), Mumbai, India, (2017)
- **Publication:** “Passive Balancing of a Novel 3-R Orientation Sensing Mechanism”; **Antao, S. A.**, Vishal, S., Rajan, S., Nair, V. S., Chittawadigi, R. G., 8<sup>th</sup> Asian Conference on Multibody Dynamics (ACMD 2016), Kanazawa, Japan, (2016)

## PROJECTS

**3-REVOLUTE ORIENTATION SENSING MECHANISM | SENIOR DESIGN PROJECT | JANUARY 2017 – MAY 2017**

- Design, fabrication & application testing of prototypes to validate the theory of the Manipulator Concept

**COMPREHENSIVE STUDY OF BURR REDUCTION | INTERNSHIP | TOYOTA KIRLOSKAR MOTORS | JUNE 2016**

- Studied quality issues caused by Burrs in Automotive Underbody Division and Proposed solution based on ‘Karakuri Kaizen’ to reduce occurrence of Burrs

## MEMBERSHIPS, AWARDS AND ACHIEVEMENTS

- Vice President of Membership in ‘Jinsei Dojo’ – sole Japanese toastmasters club in India | July 2016 -December 2016
- Secured the first place in Healthcare Innovation Competition at Bosch for the Innovative knee brace
- Secured third place in the Healthcare Innovation Competition at Bosch for Intelligent Health Companion
- Secured third place in a Department competition at Bosch for building a quadcopter. Received a commendation on best design for the same

## TECHNICAL SKILLS

OPENCV • TENSORFLOW • ANACONDA • PYTHON • C++ • ROS (ROBOT OPERATING SYSTEM) • LINUX • ANSYS • ADAMS • SOLIDWORKS 2017 • AUTODESK INVENTOR 2016 • SEIMENS NX 11 • AUTOCAD • MICROSOFT OFFICE

## LANGUAGE SKILLS

ENGLISH (NATIVE PROFICIENCY) • JAPANESE (ADVANCED PROFICIENCY) • GERMAN (BASIC PROFICIENCY)