Omkar Bhoite

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Fields of Interest

- Robotics, Physics, Automation, Rocket Science, Astrophysics.

Education Credentials

2015-2019 : **Bachelor of Engineering : Instrumentation & Control Engineering**, *All India Shri Shivaji Memorial Society's Institute of Information Technology, Pune*,

- First year of Engineering : 8.7 SGPA
- Second year of Engineering : 8.38 SGPA
- Third year of Engineering : 8.33 SGPA
- Fourth year of Engineering : 8.82 SGPA.

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Projects & Seminars

B.E. 3^{rd} Sem: To design a regulated power supply using IC 7805 & IC 7905 and to build a printed circuit board to implement the circuit.

B.E. 4^{th} Sem: To design a object counter circuit using IC 4026 CMOS Decade Counter/ Divider.

B.E. 5^{th} Sem: Presented a seminar on topic " Quantum computer " with thorough details on Maxwell demons and energy exchange method to do build cryogenic system for quantum computer to reach the near absolute zero temperature. Introduced the concept of logic gates that can be implemented using the QC.

B.E. 6^{th} Sem: Studied the working of gyroscope & accelerometer for determining the spatial position of the drone in 3-Dimensonal Space and also to calculate it's velocity. Studied YPR parameters of drone and implement it to have a controlled positioning of the drone in 3-D Space

B.E. 7^{th} & 8^{th} Sem: Design and development of an automated testing equipment for an switch mode power supply (SMPS) & its analysis and data acquisition using LabVIEW.

Research Experience

2017–2018 : **Fabrication of Micropillars and Study of Polariton Laser:**, *Learned Photolithographic technique using LW405 laser writer and created micropillars to study the enhancement of the DBR reflectivity for the given Braggs wavelength. Build MATLAB simulations to study different charateristics of DBR and how the DBR reflectivity changes as the function of refractive index of the dielectric medium, insertion of spacer between DBR, multi-layer DBR, and multi-layer DBR with spacer*, **Indian Institute of Science Education and Research (IISER)**, **Pune, Maharashtra, India**.
Guide & Adviser : Dr. Datta Shouvik

2018 : **Building Gigahertz Transimpedance amplifier for low temperature RF amplification and shot noise measurement:**, *Developed a technique to build a miniature size printed circuit board for implementing the transimpedance amplifier circuit and also studied how to troubleshoot the difficulties like EMI, PCB board capacitance and cryostat effect that hamper the operation of the amplifier for measuring the signal in RF region and signal amplification.*, **Indian Institute of Science Education and Research (IISER)**, **Pune, Maharashtra, India**.
Guide & Adviser : Dr. Datta Shouvik

Computer Skills

- ***Software*** : Matlab, Arduino IDE, LabVIEW, Simulink, MultiSim, Ultiboard, LaTeX.
- ***Languages*** : C Language, Netbeans, SQL.

Publications

- **Omkar Vilas Bhoite**, Pramod Bhausaheb Divekar, Kshitij Vijay Bhalerao & Prof. Hemant Chaudhari, *" Design and development of an automatic testing equipment for a Switch Mode Power Supply (SMPS) and its analysis and data acquisition using LabVIEW "*, JETIR/Vol 6/Issue 5 /Q53, http://www.jetir.org/view?paper=JETIR1905Q53.

Achievements & Certifications

2011-2013 : IT Quizzes by Tata Consultancy Services.

2016 : Secured 1st position in "How Tech Works" competition conducted by IIT, Madras in Shastra Technical event

2016 : Workshop on Embedded System (Arm Cortex MSP432) by Texas Instrumentation at IIT, Bombay.

2016 : Secured 3rd position in "Let's C programming" competition in event INSTRON conducted by AISSMS IOIT, Pune.

2017 : Participated in RoboWar and Search N destroy competitions at MINDSPARK Technical Event conducted by Government College of Engineering, Pune (2017)

2017 : Participated in RoboRace competition at AISSMS's College of Engineering.

Leadership

- Class Representative of 2^{nd} & 3^{rd} year of engineering course
- Team leader of the robotics team.

Hobbies

- Watching TV Series (Favourite's: The Big Bang Theory, Silicon Valley, Young Sheldon & also love to watch Discovery & NatGeo)
- Drawing & Painting.