



Basic Information

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Allotted Station: Nihon Communications - Embedded Systems Bangalore

Practice School-I Details

Name: Nihon Communications - Embedded Systems,Bangalore
Designation: -

Details Of On Campus Courses (Including electives) :

S.No Course Name

INDIA CLASS MUSIC(VO)III
ELECTRICAL SCIENCES
ELECTRICAL MACHINES
CONTROL SYSTEMS
COMPUTATIONAL PHYSICS
STUDY PROJECT
GENERAL CHEMISTRY
MATHEMATICS III
QUANTUM INFO & COMPUTING
QUANTUM MECHANICS II
ENVIRONMENTAL STUDIES
TECH REPORT WRITING
PHYSICS LABORATORY
OPTICS
MATH METHODS OF PHYSICS

S.No Course Name

ENGINEERING GRAPHICS
PROBABILITY & STATISTICS
CLASSICAL MECHANICS
ELECTROMAGNETIC THEO II
NUCLEAR & PARTICLE PHY
BIOLOGICAL LABORATORY
MATHEMATICS-I
DIGITAL DESIGN
SIGNALS & SYSTEMS
SOLID STATE PHYSICS
INTRO TO CARNATIC MUSIC
COMPUTER PROGRAMMING
PRINCIPLES OF ECONOMICS
MICROPROC & INTERFACING
STATISTICAL MECHANICS

S.No Course Name

CHEMISTRY LABORATORY
MECH OSCIL & WAVES
ELEC MAGNET & OPTICS LAB
MODERN PHYSICS LAB
CREATIVE THINKING
THERMODYNAMICS
WORKSHOP PRACTICE
ELECTROMAGNETIC THEO I
QUANTUM MECHANICS I
INTRO TO ASTRO & ASTROPH
GENERAL BIOLOGY
MATHEMATICS-II
ELECTRONIC DEVICES
MICROELECTRONIC CIRCUITS
ATOMIC & MOLECULAR PHY

Software Skills:

• Shell • Python • Matlab • LATEX • C++ • Verilog • LabVIEW • JavaScript • SolidWorks • Fusion360 • Onshape • Mobile Application Development • UI/UX design

Apart from these Software skills, I have worked with the following Hardware Platforms:

• esp8266 • Arduino • ST32F103 • NI DAQ • Raspberry Pi (and other IoT platforms)

Any Other Projects/Relevant Courses (formal/informal):

Below are brief outlines of the projects I have been a part of and skills acquired during previous internships.

1. Designed electronic transport measurement probe for cryogenic temperatures down to 2K, in Superconductivity lab, NISER, Bhubaneswar, India.
2. Simulation of IR seeker missiles in defense laboratory - DRDO, Bangalore, India.
3. Several guided reading projects on transport in 2D materials, quantum Hall effect etc., on-campus at BITS Pilani, Goa, India.

Below are brief outlines of on-campus student projects I have been a part of,

1. A Novel Stove Stand : Designed and built a contraption to harness electricity (about 20W) from the otherwise wasted heat energy produced while burning LPG gas for cooking. It also reduced the cooking time.
2. Pressure-sensitive mat: To make a mat that can sense touch enabling the determination of different poses such as Running, Jumping, Rightward-leftward movement, one-leg hop, etc.. (Worked in electronics and algorithm design).
3. Design of a low-cost thermal evaporation deposition system Design and optimization of a thermal evaporation coater unit. (As the project head)
4. Open-source IoT router : Design of a completely open-source IoT router hardware based on the RISC-V ISA. (As the project head)
5. Team Imitato: Designing an exosuit to control a humanoid that can be beneficial in reaching in- accessible and non-human conditions. (Working as Electronics, Communication and Haptics Control head)
6. Past electronics team member of Hyperloop India and Project Kratos .

Extra Curricular Activities:

I am a member of the Music Society of our campus as a flutist which hosts several music events during the semester. I am also part of the cultural arts club Shrutilaya which promotes the Indian classical art forms to the masses.

Professional Interest:

Experimental condensed matter physics (Device Physics).
VLSI Design, Interfacing sensors with microcontrollers (Arduino, Raspberry Pi, or other equivalent platform), Embedded Systems, Power management, electrical drive system. Instrument design. Mobile app Development.

Objective In Pursuing PS-II in About 100 Words

The main objective in pursuing PS-1 is to gain valuable experience beyond classrooms by academically engaging in projects identified from industries of varying scale, scope, and complexity. I wish to understand and learn the operations of an industry, and gain proficiency to solve industry problems applying theoretical concepts and contemporary tools. I wish to enhance technical, interpersonal and communication skills through practice.
