

NABARUN PAL

Pre-final year undergraduate at [Indian Institute of Technology Roorkee](#)

AREAS OF INTEREST

Software Development, Internet of Things, Robotics, Machine Learning

PERSONAL DATA

ADDRESS: S-157, Ravindra Bhawan, IIT Roorkee, Roorkee, India
PHONE: +91 87 555 14415, +91 70053 70727
EMAIL: pal.nabarun95@gmail.com, nabarun.umd2014@iitr.ac.in
WEBSITE: nabarun.in
GITHUB: github.com/palnabarun

WORK EXPERIENCE

MAY '16 - JULY '16	<p>Software Engineer at GURUPRIYAM INNOVATION LABS, Bengaluru, India</p> <ul style="list-style-type: none">• Developed experiential products using Leap Motion Controller and various web API's• Developed interactive billboards using Kinect V2• Made a productivity enhancement device to be installed in offices for helping employees in tracking their sitting time• Developed an Automatic Irrigation System controller using 555 timer and ESP8266 to enable IoT connectivity
JAN '15 - CURRENT	<p>Software and Hardware Systems Engineer at TEAM ROBOCON, <i>Indian Institute of Technology Roorkee</i></p> <ul style="list-style-type: none">• Solved the problem statement of ABU Robocon 2017 with a team of 25 members• Solved the problem statement of ABU Robocon 2016 with a team of 24 members• Developed libraries in Python and C++ to extract data from generic USB Joysticks and DualShock 3 controllers using any linux based system or Arduino• Designed multi-layered PCB's for Raspberry Pi 2 and Arduino Mega 2560• Designed a voltage indicator circuit to prevent under-voltage of Li-Po batteries• Worked on developing autonomous navigational algorithms for control of Omni-wheeled and Mecanum wheeled robots by Arduino and Raspberry Pi
JAN '15 - CURRENT	<p>Joint Secretary & Project Mentor at MODELS AND ROBOTICS SECTION, Indian Institute of Technology Roorkee</p> <ul style="list-style-type: none">• Worked on developing the software for Swarm Robotics in order to enable communication between bots via WiFi on ESP8266 Module and writing server backends for efficient communication• Worked on a Virtual Reality based project NAINA where stereo imaging system was made and depth input was fed to a VR headset which showed the user the 3D drawing he/she was making• Fabricated and developed a Self-Balancing Robot which balanced by taking feedback from a 6-axis Inertial Measurement Unit and employing filters & PID control
AUG '14 - CURRENT	<p>Web Head & Finance Executive at IIT HEARTBEAT, <i>official Inter-IIT magazine of IIT Roorkee</i></p> <ul style="list-style-type: none">• Responsible for the web activities of the magazine• Helped in procuring a funding of Rs. 20000 which is approx. 80% of the total funds of the magazine• Managing a team of 15 members for Web and Finance activities

SOFTWARE AND HARDWARE SKILLS

Languages: Python, Node.js, C/C++, \LaTeX
Databases: MySQL, MongoDB, PostgreSQL
Toolkits: Flask, Django, OpenCV, PhantomJS, nltk
Software: Git, Vim, Atom, Sublime, GNU/Linux, NI Suite, Eagle PCB CAD, Matlab, SolidWorks, Photoshop
Hardware: Arduino, Raspberry Pi, TI SimpleLink

EDUCATION

PURSuing Bachelor of Technology in METALLURGICAL and MATERIALS ENGINEERING
with Minors in COMPUTER SCIENCE and ENGINEERING
Credits: 109/109 , **Indian Institute of Technology, Roorkee**
CGPA: 8.477/10, Department Rank 3 (out of 110 students)
MAY 2014 **All India Senior School Certificate Examination, CBSE** | Final Score: 89%
MAY 2012 **All India Secondary School Examination, CBSE** | Final Grade: 10/10

EXTRA CURRICULAR ACTIVITIES

JAN '15 - CURRENT	Robotics, <i>Indian Institute of Technology Roorkee</i> <ul style="list-style-type: none">• Part of the team that represents IIT Roorkee in ABU Robocon• Joint Secretary at Models and Robotics Section
NOV '15 - MARCH '16	Robosapiens, Cognizance 2016, <i>the annual technical festival IIT Roorkee</i> <ul style="list-style-type: none">• Co-ordinated the event successfully• Brought in a participation of 54 teams comprising about 250 members
AUG '14 - MAY '15	Volunteer, National Service Scheme, <i>Indian Institute of Technology Roorkee</i> <ul style="list-style-type: none">• Involved in the Event Management and Promotions Cell where my task was to promote the various activities conducted by other cells• Successfully organised Two Blood Donation Camps where we managed to collect approx 1000 units of blood in each event
NOV '14 - MARCH '15	Breach Wars, Cognizance 2015, <i>the annual technical festival IIT Roorkee</i> <ul style="list-style-type: none">• Volunteered in managing the robotics event• Managed a participant contingent of about 150 people

SCHOLARSHIPS AND CERTIFICATES

OCT. 2016 Merit-cum-Means Scholarship for outstanding performance in academics (INR 1,00,000)
MARCH 2016 Best Aesthetic Robot & 5th Position in ABU Robocon India 2016 (out of 105 teams)
DEC. 2015 Merit-cum-Means Scholarship for outstanding performance in academics (INR 1,00,000)
MAY 2015 Awarded Dedicated Proficiency Holder for outstanding social service in NSS in the year 2014-2015
MARCH 2015 2nd Position out of 80 teams in Robosapiens - National Robotics Event - Cognizance 2015
DEC. 2014 Merit-cum-Means Scholarship for outstanding performance in JEE Advanced (INR 1,00,000)
MAY 2014 JEE ADVANCED: 177 (P:63;C:69;M:45) 99th percentile
APRIL 2014 JEE MAINS: 216 99th percentile

LANGUAGES

ENGLISH: Fluent (SRW)
HINDI: Fluent (SRW)
BENGALI: Mothertongue (SRW)

REFERENCES

Available on request