Email: rahul.me12@iitp.ac.in prahul88@gmail.com

Phone: +91-9472457566 **DOB:** 19 February, 1995

P. Rahul Palani

Permanent Address: 84-B, Bhawanipur Colony

Indore, M.P. – 452009

Nationality: Indian

QUALIFICATION	INSTITUTION	YEAR OF PASSING	SCORE
B.Tech (Mechanical Engineering)	Indian Institute of Technology Patna, Bihar	2016	CPI – 8.4
XII	Emerald Heights International School, Indore - CBSE	2012	93.4 %
X	Choithram School, Indore – CBSE	2010	CGPA – 9.6

WORK EXPERIENCE AND PROJECTS

Research Intern - Indian Institute of Science, Bangalore

May - Jun '15

Guide: Prof. Satish Vasu Kailas, Madhu HC (Research Scholar), Surface Interaction and Manufacturing Lab, IISc Bangalore

- Optimized the plunge stage in friction stir welding of Al-2024-T351 alloy sheets with tapered tool using gradient approach.
- Developed a numerical model for the process in Deform 3D V 6.1 with the optimized process parameters using Lagrangian Incremental Formulation, Johnson and Cook Flow Stress Model and Coulomb's Law of Friction.
- o **Validated** the numerical model with experimentally measured temperatures.

SAE BAJA INDIA 2015 (All-Terrain Vehicle)

July'14 - Present

Guide: Dr. Akhilendra Singh, Dr. Mayank Tiwari, Department of ME, IIT Patna

- Designed ergonomic Steering System in SolidWorks, performed failure analysis of Tie-Rod & Knuckle in ANSYS.
- Analyzed High Speed Cornering using MATLAB. Cleared the Virtual Design Round being the only team from Bihar.
- Gained lots of hands-on-experience working in a team to complete the Fabrication and Testing of the vehicle.

Industrial Intern - CNH Industrial, Pithampur

Jun - July'14

Mentors: Mr. Amit Tiwari (Sr. Manager) & Mr. Ramesh Kumar, Maintenance Department, CNH Pithampur

- o Studied in-detail functioning of Fabrication, Assembly Line and Paint Shop of Back Hoe Loaders and Vibratory Compactors.
- Learnt about World Class Manufacturing (WCM) Techniques, KAIZEN, 5S, SOP and their applications.

Rotating Fixture for Wire-EDM

Feb'14 - Mar'14

Guide: Dr. Probir Saha, Dr. S.S Panda, Mr. Sanjeev Maithy, Department of ME, IIT Patna

Designed & Fabricated Rotating Fixture capable of rotating workpiece for machining in different planes for Wire-EDM.

ASME Human Powered Vehicle Challenge 2014

Nov'13 - Jan'14

Guide: Dr. Sawan Suman, Dr. Akhilendra Singh, Dr. Mayank Tiwari, Department of ME, IIT Patna

- Designed the USS Steering System using cross-dual-link mechanism and Ackermann Geometry in Auto CAD 2014.
- o Fabricated the Human Powered Trike along with the team of 11 members & stood AIR 10 in the competition held at IIT Delhi.

Wireless Air Cushion Vehicle

July'13 - Sep'13

- Designed and fabricated a wireless hovercraft using Arduino and Bluetooth Shield (for wireless communication).
- Participated in Hover race Robotics Event in Techniche, Technical Fest at IIT Guwahati.

ACHIEVEMENTS

- o KVPY Scholar (Kishore Vaigyanik Protsahan Yojana) received a call-letter from IISc, Bangalore to pursue B.S with fellowship.
- o Secured AIR 4845 in IITJEE 2012, AIR 2322 in AIEEE 2012 and AIR 73 in National Science and Talent Search Examination 2011.
- o **CBSE Certificate of Merit** in English for being in top 0.1% of the candidates passing in 2012.
- Best Mechanical Design, Hydraulic Robotic Arm Competition conducted in First Year, IIT Patna.

POSITIONS OF RESPONSIBILITY

- o Placement and Internship Coordinator Training and Placement Cell, Mechanical Department, IIT Patna.
- o Technical Events Organizer Anwesha'14, Celesta'13: Hydraulic Robotic Arm, Trebuchet Competitions.
- o **Task Manager**, Start-up Relations **Entrepreneurship Club**, IIT Patna.

TECHNICAL SKILLS

- o Software Tools Deform 3D, SolidWorks, Auto CAD, Pro-E, ANSYS, Flowex, MS Excel, LaTeX
- Programming Languages C/C++, Java, MATLAB, Lab View.

INTEREST AREAS

Manufacturing, Automobiles, Renewable and Sustainable Energy, Machine Design, Solid Mechanics.

EXTRA CURRICULAR ACTIVITIES

Lead Guitarist, College Band – Half Step Down, performed live during the college cultural festival Anwesha'14 & '15.