

# PARTH JOSHI

PhD Candidate

Robotics & Controls | Visvesvaraya PhD Fellow

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## EDUCATIONAL BACKGROUND

YEAR	QUALIFICATION	INSTITUTE	SCORE
2024- Present	Ph.D. (course work)	INDIAN INSTITUE OF TECHNOLOGY GANDHINAGAR	9.20/10
2016-20	B.Tech	INDIAN INSTITUE OF TECHNOLOGY JODHPUR	7.13/10
2015-16	Class XII	SHIV JYOTI SENIOR SECONDARY SCHOOL, KOTA	86.2%

## ACHIEVEMENTS

- Visvesvaraya PhD Fellowship
- Awarded **GYTI 2020 award.**
- Secured **13<sup>th</sup>/450** rank in BAJA sales
- AIR 5044** in JEE ADVANCE 2016
- Qualified GATE 2024

## EXPERIENCE

- PhD Candidate — IIT Gandhinagar** July'24- Present
  - Research focus: variable-stiffness cable-driven soft grippers — design, fabrication and experimental evaluation of pneumatic stiffness modulation coupled with cable actuation.
  - Developed hardware testbed integrating ODrive-controlled BLDC actuation, a precision pressure regulator, force/pressure sensing and data-acquisition pipeline.
  - Implemented control & data-analysis routines in Python/MATLAB; designed experiments to quantify grasp stability across pressure and actuation conditions and documented results for future publication/submission.
- Product Development Officer, IITJ-TISC** Sept'23 – Feb'24
  - Led product development of a medical device at IIT Jodhpur's TISC in collaboration with AIIMS Jodhpur, overseeing design and development.
  - Developed and validated prototype through CAD, simulations, and performance testing.
- Project Analyst at Digiprix, Ahmedabad** Dec'22 – Sept'23
  - Coordinated client projects by managing requirements, timelines, and deliverables across stakeholders and internal teams.
  - Prepared data-driven reports and facilitated cross-functional collaboration to ensure alignment and smooth execution.
- Internships**
  - Larsen & Toubro, Powai** May'17 – July'18
    - Developed the mechanical design model for communication system for an underwater platform in the Product Technology Development Center (PTDC), Department of Defence; as part of an industry-academia linkage program in collaboration with IIT curriculum.
  - Research work at AIIMS NAGPUR** May'19 – July'19
    - Determined the SoP and Collected the data of muscle activities of 150 subjects for the development of muscle fatigue measurement device under the guidance of the Dr. Prathmesh Kamble, HoD Physiology, AIIMS Nagpur.

## COURSE WORK

- Control theory
- Intro. To Robotics
- Operation management
- Experimental Techniques
- IoT & Mechatronics
- Geometric modeling & CAD

## CO-CURRICULAR

- Took lectures on various aspects of ATV transmission in institute
- Former member of the Institute Volleyball team
- Organized and participated in **SPANDAN**, an intra-college cultural fest and won the trophy
- Managed cultural affairs of the hostel
- Participated 3 times in **Inter IIT Cult meet** from Dramatics society

## MAJOR PROJECTS

- Design and Fabrication of an All-Terrain Vehicle for SAE BAJA 2018.**
  - Designed & Fabricated a single-seated ATV capable of maneuvering in all terrain
  - Worked in a team of 25 members, a salient role in department of Transmission & Sales
- Development of an All-New Muscle Fatigue Measurement Device**
  - Designing a whole new design for a measurement of muscle fatigue device by opting for a Minor degree in **Engineering Innovation** in collaboration with **AIIMS Nagpur**.

## POSITIONS OF RESPONSIBILITY

- Secretary of Cultural and Literary society of Hostel G-5, 2018-19
- Head of Technical events & Technical Exhibition, IGNUS-2019
- Student Guide, Counseling Service, 2017-2020