Rohit Menon

PhD Candidate in Robotics
University of Bonn, Humanoid Robots Lab
menon@cs.uni-bonn.de | rohit-menon.com | ORCID: 0000-0001-9724-1182
Google Scholar | ResearchGate | GitHub

Education

Ph.D. in Computer Science (Ongoing) — 2022 – Present
University of Bonn — *Bonn, Germany*

- Focus: Active Perception, Semantic Mapping, and Uncertainty-Aware AI for Agricultural Robotics.
- Advisor: Prof. Dr. Maren Bennewitz, Humanoid Robots Lab.

M.Sc. in Automation and Robotics — 2012 – 2015
TU Dortmund University — *Dortmund, Germany*

- Master's Thesis at DLR (German Aerospace Center) on Shared Autonomy for Assistive Robotics.

B.E. in Electrical Engineering — 2004 – 2008
University of Mumbai (SPCE) — *Mumbai, India*

- Silver Medal for academic excellence in the Bachelor's Program.

Professional Experience

Research Associate — 2022 – Present
Humanoid Robots Lab, University of Bonn — *Bonn, Germany*

- Leading research on autonomous fruit mapping and multi-arm manipulation in the PhenoRob Cluster of Excellence.
- Developing evidential deep learning frameworks for uncertainty-aware semantic surface mapping.

Founding Engineer & Group Lead (AI in Manipulation) — 2019 – 2022
NEURA Robotics — *Metzingen, Germany*

- Spearheaded the AI division focusing on industrial manipulation and human-robot engagement.
- Developed deep-learning based pick-and-place systems and multi-sensor fusion for collision avoidance.

Researcher (Robot Control) — 2015 – 2019
DFKI (Robotics Innovation Center) — *Bremen, Germany*

- Contributed to EU projects (Hybr-IT, TransFIT, NeTTUN) on mobile manipulation and trajectories.
- Served as DFKI Project Coordinator for the EIT Digital project iLevator (2016).

Senior Executive (Engineering & Commissioning) — 2008 – 2012
Siemens Ltd — *Thane, India*

- Led large-scale industrial automation projects, focusing on drive control schemes and commissioning of complex machinery.
- Developed AC/DC drive control schemes, PLC programming, and HMI designs.

Master Thesis Student — 2014 – 2015
DLR - German Aerospace Center — *Wessling, Germany*

- Developed shared autonomy interfaces for assistive robotic hands.

Honors & Awards

- **Best Poster Award**, IROS Workshop on Perception and Planning for Mobile Manipulation (2025).

- **Deutschlandstipendium**, Awarded by the German Federal Government (2013).

- **Silver Medal**, Bachelor in Electrical Engineering, SPCE, University of Mumbai (2008).

- **Ratan Tata Scholarship**, Awarded for excellence in engineering (2006 – 2008).

Selected Publications

- **Menon, R.**, et al. "Open-Vocabulary and Semantic-Aware Reasoning for Search and Retrieval of Objects in Dynamic and Concealed Spaces." *IROS Workshop on Perception and Planning for Mobile Manipulation*, 2025. (**Best Poster**)

- **Menon, R.**, Dengler, N., Pan, S., Chenchani, G.K., Bennewitz, M. "EvidMTL: Evidential Multi-Task Learning for Uncertainty-Aware Semantic Surface Mapping from Monocular RGB Images." *IROS*, 2025.

- **Menon, R.**, Dengler, N., Bennewitz, M. "GO-VMP: Global Optimization for View Motion Planning in Fruit Mapping." *IROS*, 2025.

- Lenz, C.*, **Menon, R.***, et al. "Hortibot: An Adaptive Multi-Arm System for Robotic Horticulture of Sweet Peppers." *IROS*, 2024.

- Marangoz, S.*, **Menon, R.***, et al. "DawnIK: Decentralized Collision-Aware Inverse Kinematics Solver for Heterogeneous Multi-Arm Systems." *IEEE Humanoids*, 2023.

- **Menon, R.**, et al. "NBV-SC: Next Best View Planning Based on Shape Completion for Fruit Mapping." *IROS*, 2023.

Professional Service

- **Reviewer:** IEEE RA-L, IJRR, ICRA, IROS, CASE, Humanoids, RSS 2026.

Public Engagement

- **Pint of Science (Bonn):** "From Pixels to Peppers: Active Perception in Robotic Agriculture" (2024).

- **WDR Bonn:** Television interview on the HortiBot system and the future of robotics (2024).