Durgesh Haribhau Salunkhe

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I believe in approaching a problem from its foundation and achieving excellence through exploring unconventional yet efficient solutions.

Looking for: Exciting opportunities

- PhD in robotics
- Collaborations with industry and academic labs
- Publications in top tier journals and conferences
- Professional experience in product development
- Completed four international research projects
- Representative in International Study Council

Education

Nov '23	**PhD in Robotics, CNRS** Cuspidal robots : Analysis, classification and application of 6R cuspidal serial robots Advisors: Philippe Wenger, Damien Chablat
Sep '20	**Ecole Centrale de Nantes** Robotics Engineering - Erasmus Mundus Master thesis: Optimal design of a robot mechanism for otological surgery

Professional Experience

Current Apr '24	**Ecole Polytecnique Federale de Lausanne (EPFL), Swiss**. Postdoctorate researcher. • Currently working in LASA lab
Mar '24 Jan '24	**Centre National de Recherche Scientifique (CNRS), France**. Research Engineer • Worked on a mathematic conjecture on 6R cuspidal robots. • Conducted a workshop on scientic presentations.
Oct '17 May '18	**Indian Institute of Technology, Jodhpur** Junior Research Fellow, Robotics Laboratory • Developed full-body sensorless active compliant 6dof parallel mechanism • Collaborated with DFKI GmBh for an architecture of dynamic analysis
Jul '16 Oct '17	**Grey Orange Robotics, Gurgaon, India** Design engineer, R&D Department • Designed robotic grippers for automated logistics applications • Design for impact loading leading to sort 50% heavier packages

Invited Talks (recent 2)

Apr '24	**Cuspidal robots: geometrical analysis and issues in path planning of 6R cobots**, at Workshop on Kinematics of Robots in Linz, Austria
Sep '23	**Recent results on cuspidal robots**, at Summer school on Singularities in Mechanisms and Robots

Courses

- **Summer school** on Singularities in Mechanisms & Robotic manipulators
- **National Workshop** on Human Collaborative Robotics
- **Workshop** on Robot modeling & control and, applications to aerial robotics

Research projects

- Efficient Certified Algorithms for Robot Motion Planning (ECARP)
- Design, control and trajectory generation of a quadrotor at Indian Institute of Technology, Jodhpur
- Design of a mechanism to eject and manipulate a radioactive part at Bhabha Atomic Research Centre, Mumbai

Scholarships

- Erasmus Mundus Consortium Scholarship, EMARO+
- Invest Your talent in Italy, 2019

Technical Skills

- **Inventor** - Professional experience
- **Maple** - Professional experience
- **Python** - Professional experience
- **CATIA** - Academic projects
- **MATLAB** - Academic projects
- **C, C++** - Academic projects

Publications (top 2)

[Under review]**6R cuspidal robots: kinematic issues and guidelines for path planning and design**, in IJRR 2024

Trajectory planning problems in commercial cuspidal robots in ICRA 2023