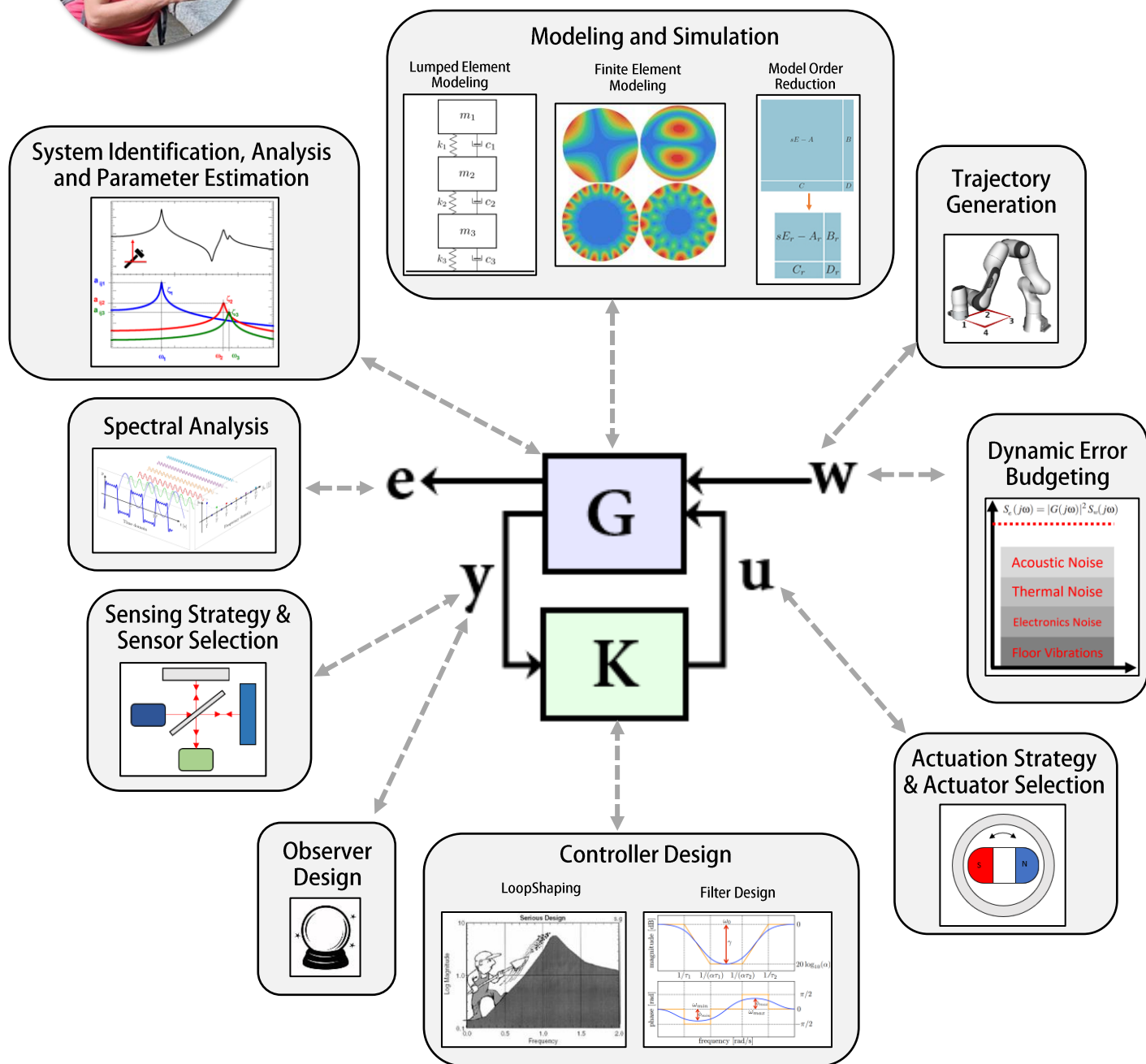




Ajinkya Bhole

Control Design | System Dynamics

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Programming & Tools



Courses and Trainings

Dynamics and Modeling (High Tech Institute 2022)	Learning and Adaptive Control (DISC 2022)
Mathematical Modeling of Systems (DISC 2023)	Nonlinear Control Systems (DISC 2023)
Nonlinear Control for Performance (DISC 2023)	Design Methods for Control Systems (DISC 2023)
HEEDS: Design Exploration and Optimization (Siemens 2023)	Design Principles for Precision Engineering (High Tech Institute 2024)

Education

2016 - 2018	MSc. in Systems and Control University of Twente, The Netherlands (Courses) GPA: 8.2/10
2018	MSc. Honours in Design University of Twente, The Netherlands
2012 - 2016	B.E. Hons. in Mechanical Engineering BITS Pilani – Pilani Campus, India GPA: 7.9/10

Publications

- Online Estimation of Impedance Parameters for a Variable Impedance Controlled Robotic Manipulator.
A. Bhole, F. Ficuciello, A. Mashayekhi, S. Strano, M. Terzo, L. Villani, B. Sciciliano (IFIT 2018) ([Link](#))
- Control of a Variable Stiffness Joint for Catching a Moving Object.
A. Bhole, J. Kumle, S.S. Grothuis, R. Carloni (IROS 2018) ([Link](#))
- Design of a Robust Stair Climbing Compliant Modular Robot to Tackle Overhangs on Stairs
A. Bhole, S.H. Turlapati, V.S. Rajashekhar, J. Dixit, S.V. Shah, K.M. Krishna (Robotica 2018) ([Link](#))

Thesis

- [Masters Thesis](#): Towards KriCatch, A Slip Catching Practice System for the game of Cricket
Advisors: Douwe Dresscher, Stefano Stramigioli (RAM Lab, University of Twente, The Netherlands)
- [Bachelors Thesis](#): Design of a Robust Stair Climbing Compliant Modular Robot to Tackle Overhangs on Stairs
Advisors: Suril V. Shah, K. Madhav Krishna (Robotics Research Center, IIIT Hyderabad, India)

Work

Feb 2019 Present	System Engineer within Drive and Controls Group Sioux Technologies B.V. Eindhoven, The Netherlands <ul style="list-style-type: none">Facilitating development of multidisciplinary systems through Systems Engineering Process. <div>Systems Thinking Concept Design Studies Modeling and Simulation System Budgeting</div> <div>Control System Design and Implementation Testing, Verification and Validation</div>
July 2017 Dec 2017	Research Intern PRISMA Lab University of Naples Federico II, Naples, Italy With Fanny Ficuciello, Luigi Villani and Bruno Sciciliano <ul style="list-style-type: none">Realized Variable Impedance Control for a robotic manipulator (KUKA LWR) and ensured task stability using <i>energy-tanks</i>. (Link) <div>Energy Tanks Passivity-based control Variable Impedance Control</div>
Aug 2016 Dec 2016	Research Assistant RAM Lab University of Twente, The Netherlands With Raffaella Carloni <ul style="list-style-type: none">Devised a control strategy, inspired by the natural mechanism of adjusting hand impedance to catch objects, onto an arm actuated by variable stiffness actuator. (Link) <div>Variable Stiffness Actuators Optimal Control</div>

References

Fanny Ficuciello Associate Professor Robotics and Control Group University of Naples Federico II fanny.ficuciello@unina.it	Douwe Dresscher Assistant Professor Robotics and Mechatronics Group University of Twente d.dresscher@utwente.nl	Raffaella Carloni Associate Professor Bernoulli Institute for Mathematics, Computer Science and AI University of Groningen r.carloni@rug.nl	Harm Clements System Designer Drive and Control Group Sioux Technologies B.V. harm.clements@sioux.eu
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