Kenneth Goveas

Max Planck Institute of Animal Behaviour
Am Obstberg 1, 78315 Radolfzell, Germany

✉ kgoveas@ab.mpg.de
🜨 github.com/Kenneth-Goveas

Interests

I am an engineer with a keen interest in dynamics and control. I'm particularly fascinated with model predictive control, and enjoy working on projects combining rigorous mathematical theory, simulation, and hands-on work with robots and electronics.

Work experience

Max Planck Institute of Animal Behavior (MPI-AB) Since 2022
Coordinator for Tag Development.

Education

Rheinisch-Westfälische Technische Hochschule (RWTH) Aachen 2023
Master of Science in Robotic Systems Engineering.

Indian Institute of Science (IISc) Bangalore 2019
Bachelor of Science (Research) in Physics.

Projects

ICARUS CellTag: Lightweight low power cellular-network-based biologger Since 2022
Department of Migration, MPI-AB.

Learning the stage cost in model predictive control (M.Sc. thesis) 2022
Institute for Data Science in Mechanical Engineering, RWTH.

Flight computer for automatic control of rocket air-brakes 2021
Mechanical Systems Division, Space Team Aachen e.V.

Modelling and control of a quadrotor helicopter (B.Sc. thesis) 2019
Department of Physics, IISc.

Competitions

European Rocketry Challenge (EuRoC) 2021
As member of Space Team Aachen e.V., successfully launched student-developed rocket to 3 km apogee. Was responsible for development of automatic air brake controller.

Fellowships

Kishore Vaigyanik Protsahan Yojana (KVPY) 2015-2019
Indian national fellowship programme including stipend and contingency grant.

Technical skills

Programming and computing
C/C++, Python, Java, Bash, Mathematica, Makefile, CMake, Git, SQL, LaTeX, Parallel computing, Networking and sockets, Linux programming.

Embedded systems and electronics
Printed circuit design, Zephyr RTOS, Raspberry Pi, AVR microcontrollers, Arduino.

Quantitative and analytical skills
Nonlinear dynamics and control, model predictive control, simulation of dynamic systems, probability and statistics, numerical optimisation, machine learning.

Relevant courses

Learning-based control, applied numerical optimisation, multi-body dynamics, machine learning, pattern recognition and neural networks, probability and statistics, statistical mechanics, ordinary differential equations, game theory.

References

Dr. Timm Wild
Max Planck Institute of Animal Behavior
twild@ab.mpg.de

Prof. Martin Wikelski
Max Planck Institute of Animal Behavior
wikelski@ab.mpg.de

Christian Fiedler M.Sc.
RWTH Aachen
christian.fiedler@dsme.rwth-aachen.de