Jindřiška Deckerová

jindriska.deckerova@gmail.com
deckejin.github.io
linkedin.com/in/deckejin-428898120
goo.gl/ZKv27j
orcid.org/0000-0001-7182-869

Education

2021 - *present* **Faculty of Electrical Engineering, Czech Technical University in Prague**
Doctoral studies | Informatics | Topic: *Dynamic robotic routing problems*

2018 - 2021 **Faculty of Electrical Engineering, Czech Technical University in Prague**
Master's degree | Open Informatics, Artificial Inteligence | Thesis: *Generalized Routing Problems with Continuous Neighborhoods*

2019 - 2020 **Escola Politècnica Superior d'Enginyeria de Vilanova i la Geltrú, Universitat Politècnica de Catalunya**
Erasmus+ program

2015 - 2018 **Faculty of Electrical Engineering, Czech Technical University in Prague**
Bachelor's degree | Open Informatics, Software Systems | Thesis: *Artificial Neural Networks in Solution of the Orienteering Problems*

Experience

2021 - *present* Researcher | **Computational Robotics Laboratory** within Artificial Inteligence Center, Faculty of Electrical Engineering, Czech Technical University in Prague

2018 - 2021 Intern | **Computational Robotics Laboratory** within Artificial Inteligence Center, Faculty of Electrical Engineering, Czech Technical University in Prague

Community Service

- Presented in supplementary videos to Elements of AI courses | 2023
- Speaker and workshop organizator at Became a scientist for a day within the International Day of Women in Science | 2022 - *present*
- Member of organization committee of Student Conference on Planning in Artificial Intelligence and Robotics (PAIR) | 2022
- Member of organization committee of International Workshop on Self-Organizing Maps and Learning Vector Quantization, Clustering and Data Visualization (WSOM+ 2022) | 2022
- PR Manager of Open Informatics study program | 2021 - 2023
- Member of Academic Senate of Faculty of Electrical Engineering, Czech Teaching University in Prague | 2019 - 2021

Awards and Competitions

2021 **Winner of the IT SPY**- the best master thesis in the field of informatics and information technology in Czechia and Slovakia

2021 **Dean's award for the best diploma thesis**

2021 Member of **the 3nd placed team at Aviation ISAC-Collegiate CTF Competition**

2020 Member of **the 2nd placed team at Aviation ISAC-Collegiate CTF Competition**

Publications

1. **Deckerová, J.** and Faigl, J., *Unsupervised Learning-Based Data Collection Planning with Dubins Vehicle and Constrained Data Retrieving Time.* International Workshop on Self-Organizing Maps, Learning Vector Quantization & Beyond (pp. 11–21), 2024.
2. **Deckerová, J.**, Váňa, P. and Faigl, J., *Combinatorial lower bounds for the Generalized Traveling Salesman Problem with Neighborhoods*, Expert Systems with Applications, 125185258, 2024.
3. **Deckerová, J.**, Kučerová K., & Faigl, J., *On Improvement Heuristic to Solutions of the Close Enough Traveling Salesman Problem in Environments with Obstacles.* European Conference on Motion Robots (ECMR) (pp. 1–6), 2023.
4. **Deckerová, J.**, Krátký, V. & Faigl, J., *Traveling Salesman Problem with Neighborhoods on a Sphere in Reflectance Transformation Imaging Scenarios.* Expert Systems with Applications, 198116814, 2022.
5. **Deckerová, J.** & Faigl, J., *Hopfield Neural Network in Solution of the Close Enough Orienteering Problem.* In Proceedings of the 20th Conference Information Technologies - Applications and Theory (pp. 169-175), 2020.
6. Faigl, J., Váňa, P. & **Deckerová, J.**, *Fast heuristics for the 3-D multi-goal path planning based on the generalized traveling salesman problem with neighborhoods.* IEEE Robotics and Automation Letters, 4(3) (pp. 2439-2446), 2019.
7. Faigl, J. & **Deckerová, J.**, *On Unsupervised Learning based Multi-Goal Path Planning for Visiting 3D Regions.* In Proceedings of the 2018 4th International Conference on Robotics and Artificial Intelligence (pp. 45-50), 2018.

Teaching Activities

Instructor

Programming in C | 2019 - 2022
Procedural Programming | 2021 - *present*
Artificial Intelligence in Robotics | 2021 - 2022
Problem Solving and Games | 2023
Planning in Artificial Intelligence | 2024

Student supervision

Master student | 2022 - 2023
Topic: *Lower Bound Estimates for Path Planning in Environment with Obstacles*
Awarded by Dean's award for the best diploma thesis

Bachelor student | 2023 - 2024
Topic: *Solving the Multi Traveling Salesman Problem with the Hopfield Neural Network*