Supervision:

I have supervised a number of students (Bachelor, Master, and PhD theses, and student research projects) as well as research assistant/engineer and postdocs.

- Bachelor Theses (total/finished/remaining): 22/22/0
- Master Theses (total/finished/remaining): 75/68/7
- PhD Theses (total/finished/remaining): 32/22/10
- Other student projects (total/finished/remaining): 32/32/0
- Research assistant/engineer (total/finished/remaining): 27/23/4
- Postdoc (total/finished/remaining): 14/10/4

Finished projects/theses: 177

Remaining projects/theses: 25

Total projects/theses: 202

Several students and postdocs are now faculty members (e.g., SDU) or research group leaders/product managers (e.g., Edgecortix Inc., Ninebot).

Bachelor Theses:

Past projects:

1. Mr. Dennis Goldschmidt (2012, Physics, University of Göttingen, Germany): "Adaptive Climbing Behavior of Walking Machines".

2. Mr. Steffen Zenker (2012, Informatics, University of Göttingen, Germany): "A Vision Based Terrain Classification Interface for Walking Machines".

3. Mr. Patrick Kesper (2012, Physics, University of Göttingen, Germany): "Object Detection and Path Finding Algorithms Based on 2D Laser Range Measurements".

4. Mr. Julius Faber (2012, Informatics, University of Göttingen, Germany): "Reinforcement Learning in a Predefined Situation Space using a KUKA Lightweight Robot Arm (Simulation)".

5. Mr. Andrej Filippow (2013, Physics, University of Göttingen, Germany): "The Echo-State Network Applied as a Critic in a Combined Actor–Critic and ICO Controller for the Task of Single-Pole Balancing".

6. Mr. Eduard Grinke (2013, Physics, University of Göttingen, Germany): “Using Synaptic Plasticity in Minimal Recurrent Networks for the Adaptive Obstacle Avoidance of a Walking Robot”.

7. Mr. Ilyas Kuhlemann (2013, Physics, University of Göttingen, Germany): “Analysing a Dynamic Walker’s Gait Stability for Compliant and Rigid Ankles”.

8. Mr. Lars Melchior (2013, Physics, University of Göttingen, Germany): “Evolution of Synaptic Plasticity using Genetic Algorithms in Neural Closed-Loop Systems”.

9. Mr. Stepan Shishkin (2014, Physics, University of Göttingen, Germany): “Comparing Combinatorial Learning with Temporal Difference Learning for the Pole-Balancing Problem”.

10. Mr. Thor Stærk Stenvang and Mr. Mathias Nielsen (2014, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Control and Regulation of the StarKick Football Table”.

11. Mr. Jon Lund (2014, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Control and Motion Planning of a Five Axis Robot Arm”.

12. Mr. Vince Jankovics (2015, Mechatronics, University of Southern Denmark, Denmark): “Artificial Neural Network based Adaptive Complaint Control for Robotic Arms”.

13. Mr. Philipp Hannibal (2015, Physics, University of Göttingen, Germany): “Visualization of Neural Networks”.

14. Mr. Deniel Horvatic (2015, Fakultaet furr Informatik, Hochschule Mannheim, Germany): “Efficient Reconstruction of Neural Interconnections in Simulated Spiking Neurons”.

15. Mr. Theis Strøm Hansen and Mr. Mathias Thor (2016, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Extending Walknet towards Emergent Object Manipulation for a Hexapod Robot”.

16. Mr. Martin Bagge Jensen and Skjold Dyre (2016, Software Engineering, University of Southern Denmark, Denmark): “Learning and Utility of Receptive Fields for Generation of Movement Patterns”.

17. Mr. Jevgeni Ignasov (2018, Mechatronics, University of Southern Denmark, Denmark): “The motor control development of a compliant robotic arm”.

18. Ms. Camilla Svane and Camilla Lyng Tobiasen (2018, Integrated Design, University of Southern Denmark, Denmark): “Bio-inspired robot body design for complex behavior”.

19. Mr. Jens Troels Nielsen and Mr. Jeppe Langaa (2018, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Neural control of a pipe climbing robot”.

20. Mr. Alexander Løvbjerg Nakos, Mr. Andreas Aagaard Asmussen, Mr. Nikolaj Pihl Sørensen, and Mr. Ole Egholm Pedersen (2019, Engineering (Robotics), University of Southern Denmark, Denmark): “Control of the Dung Beetle Robot ALPHA”.

21. Ms. Ida Blirup Skov (2022, Engineering (Robotics), University of Southern Denmark, Denmark): “ Self-solving Rubik’s Cube Robot”.

22. Mr. Erik Lyager Bjerre-Olsen (2022, Engineering (Robot Systems), University of Southern Denmark, Denmark): “ Proactive and Friendly Control of a Sensorized Elbow Exoskeleton”.

Current projects:

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Master Theses:

Past projects:

1. Mr. Kawee Suwannasit (2010, Mechanical and Aerospace Engineering, King Mongkut’s University of Technology, Thailand): “Control for Locomotion and Transformation of a Reconfigurable Spherical Robot into a Three Legged-Wheeled”.

2. Mr. Timo Nachstedt (2013, Physics, University of Göttingen, Germany): “Adaptive Neural Oscillator with Synaptic Plasticity for Robot Locomotion Control”.

3. Mr. Simon Christoph Stein (2013, Physics, University of Göttingen, Germany): “3D Segmentation of Objects and their Parts based on Local Geometric Cues”.

4. Mr. Subhi Barikhan (2014, Informatics, University of Göttingen, Germany): “Multiple CPGs with Local Feedback Mechanisms for Locomotor Adaptation of Hexapod Robots”.

5. Mr. Bassel Zeidan (2014, Informatics, University of Göttingen, Germany): “Intelligent Landmark-Based Navigation System Using Learning Techniques”.

6. Ms. Sromona Chatterjee (2014, Informatics, University of Göttingen, Germany): “Reinforcement Learning with PI2 Algorithm to Generate Motor Primitives of a Complex Snake-Like Robot”.

7. Mr. Dennis Goldschmidt (2014, Neural Systems and Computation, University of Zurich/ETH Zurich, Switzerland): “Modular Neural Mechanisms for Adaptive Spatial Behavior in Autonomous Robots”.

8. Mr. Johannes Widenka (2015, Informatics, University of Göttingen, Germany): “Application of a Virtual Muscles Model on the two-dimensional biped robot RunBot”.

9. Mr. Patrick Kesper (2015, Physics, University of Göttingen, Germany): “A Probabilistic Approach to Self-Localization and Mapping of Mobile Robots”.

10. Mr. Hans-Joachim Krauch (2015, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Exploration and Object Retrieval with Robot Swarms”.

11. Mr. Ditlev Andersen and Mr. Anders Prier Lindvig (2015, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Visual Segmentation of Potatoes in Cluttered Environments”.

12. Mr. Patrick Stolc and Mr. Giuliano Di Canio (2015, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Adaptive Locomotion Control of Embodied Legged Systems”.

13. Mr. Lasse S. Børresen (2015, Engineering (2016, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Separation of Multiple Sound Sources Using Directional Stereo”.

14. Mr. Stoyan Stoyanov (2015, Engineering (2016, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Brain–Computer Interface for Robot Control”.

15. Mr. Halvor Tram Tramsen (2016, Physics, University of Göttingen, Germany): “Using Anisotropic Friction to Improve Locomotion of Hexapod Robots on Steep Slopes”.

16. Mr. Chris Tryk Lund Sørensen (2016, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Object manipulation in a hexapod robot”.

17. Mr. Dominik Steven Weickgenannt (2016, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Action-Sequence Learning in Mobile Robotics”.

18. Mr. Carlos Moro García (2016, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Multiple time scales of learning for adaptive behavior of mobile robots”.

19. Ms. Imara van Dinten (2016, Engineering (Robot Systems), University of Southern Denmark, Denmark): “EEG Pattern Recognition”.

20. Mr. Timon Tomás (2016, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Artificial Neural Control of a Prosthetic”.

21. Mr. Martin Bulin (2016, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Classification of terrain based on proprioception sensing for multi-legged walking robot”.

22. Mr. Ignacio Torroba Balmori and Mr. Jorge Rodriguez Marin (2016, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Design, simulation and development of a bipedal locomotion platform for human-like gaits studies”.

23. Mr. Pongsiri Borijindakul (2017, Metrology, Physics, Faculty of Science, Kasetsart University, Thailand) “Softness Measurement and Application to Haptic system for Soft Sample”.

24. Mr. Krzysztof Smyl (2017, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Neural-Based Control System for Autonomous Operation of Drones”.

25. Mr.Michelangelo Setaro (2016, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Affordance learning applied on bio-inspired artificial agent”.

26. Mr. Aditya Kapilavai (2017, Mechatronics Engineering, University of Southern Denmark, Denmark): “Modeling and Control of Dung Beetle-Like Robots”.

27. Mr. Kristoffer Honoré (2017, Engineering (Robot Systems), University of Southern Denmark, Denmark): “EEG-based Motor Control”.

28. Mr. Malte Carstensen (2017, Mechatronics Engineering, University of Southern Denmark, Denmark): “Implementation and Verification of an Adaptive Neural Control Oscillator for Robot Control on a FPGA”.

29. Mr. Aitor Miguel Blanco (2017, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Neural Control of a Millipede-like Robot”.

30. Mr. Nikolaj Schaldemose Reibke (2017, Engineering (Software), University of Southern Denmark, Denmark): “Evolving Robot Control for Object Transportation”.

31. Mr. Gal Gorjup (2017, Mechanical Engineering, University of Ljubljana, Slovenia): “EEG signal processing and classification for advanced human-machine interfaces”.

32. Mr. Arne Devos (2018, Katholieke Universiteit Leuven, Faculty of Engineering Technology, MSc Energy Engineering Technology, Belgium): “Development of Autonomous Drones for Adaptive Obstacle Avoidance and Object Tracking in Real World Environments”.

33. Mr. Florentijn Degroote (2018, KU Leuven, Technologiecampus Gent, Master's in Industrial Engineering Automation): "Neural control of a compliant gummi arm robot".

34. Mr. David Thomas Docherty (2018, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Development of speech localization and multi-sensory fusion".

35. Mr. Martin Bagge Jensen (2018, Engineering (Software), University of Southern Denmark, Denmark): "Recurrent Neural Network for Movement Prediction of Surrounding Objects".

36. Mr. Salman Taj (2018, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Modeling, Simulation and Control of a Millipede inspired Robot".

37. Ms. Carolin Nowak (2019, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Reactive control for smooth object approaching of a mobile robot".

38. Mr. Carlos Viescas Huerta (2019, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Locomotion control and muscle models of a dung beetle robot".

39. Mr. Ricardo Alexandre Ribeiro Fonseca Rodrigues Do Carmo (2019, Engineering (Robot Systems), University of Southern Denmark, Denmark): "EMG-Based Prosthetic Hand Control".

40. Mr. Daniel Holst Hviid (2019, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Motion sequence control of a bio-inspired robot using spiking neural networks".

41. Mr. Mathias Thor (2018, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Modular Robot Framework".

42. Mr. Ada Varga (2019, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Bio-inspired Behaviour Learning for Dynamic Collision Avoidance on a Mobile Robot".

43. Mr. Donghao Shao (2020, Institute of Bio-inspired Structure and Surface Engineering, Nanjing University of Aeronautics and Astronautics (NUAA), China): "CPG-based climbing robot control".

44. Mr. Alexander Dupond Larsen (2020, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Neural control mechanisms with multiple sensory feedback for self-organized insect-like locomotion in complex situations".

45. Mr. Antonio Gonzalez Rot (2020, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Actuator fault detection of an UAVs".

46. Mr. Benjamin Rømer Hvenegaard and Mr. Emil Seerup (2020, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Adaptive Control for Exoskeleton".

47. Mr. Laurenz Elstner (2020, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Adaptive control for a proprioceptive motor-driven bio-inspired robot leg”.

48. Mr. Christian Quist Nielsen (2020, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Legged robot locomotion control using proprioceptive sensory feedback”.

49. Mr. Hemanth Kanner (2020, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Visual Monocular SLAM”.

50. Mr. Jevgeni Ignasov (2020, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Bio-Inspired Navigation for Autonomous Robots”.

51. Mr. Mohamed Abouseif (2020, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Learning Synergies between Motion Primitives with Self-supervised Deep Reinforcement Learning”.

52. Mr. Phillip Meyer Kyndbøl (2020, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Using machine learning for optimizing and adapting gecko like robot locomotion”.

53. Ms. Marlene Hammer Jeppesen (2020, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Adaptive Neural CPG-based Control for a Soft Robotic Tentacle”.

54. Mr. Emil Lykke Diget (2021, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Machine Learning Methods for Reliable Detection of Faults for Drones”.

55. Mr. Askarbek Pazylbekov (2021, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Soft Augmentation and Programming of a Robot Arm for an Art Installation”.

56. Mr. Bjarke Engsig Larsen (2021, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Communication Through Softness — a Visual Aid for Handover in Collaborative Robotics”.

57. Mr. Markus Dahl Lauritsen (2022, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Lifelong Autonomous Leanring”.

58. Mr. Arthicha Srisuchinnawong (2023, Engineering (Robot Systems), University of Southern Denmark, Denmark): “ Online Continual and Interpretable Robot Locomotion Learning Framework ”.

59. Mr. Daniel Mauricio Fernandez Gonzalez (2023, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Neural Control and Online Learning for Robust Locomotion of Legged Robots”.

60. Ms. Nopparada Mingchinda (2023, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Self-organized Locomotion of Millipedes”.

61. Mr. Gian Paolo Currá (2024, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Decentralized Locomotion Control for Insect-like Robots”.

62. Mr. Kasper Gjødesen Mikkelsen (2024, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Mobile Robot Control”.

63. Mr. Nathan Michael Savard (2024, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Bio-inspired Gripper”.

64. Ms. Ida Blirup Skov (2025, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Machine Learning Methods for Collaborative Tasks in Multi-agent Systems”.

65. Mr. Nicolai Hoang Huy Nguyen (2025, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Closed-loop human-robot and robot-robot interaction”.

66. Mr. Oliver Gynther Torngaard (2025, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Adaptive Neural Control for Soft Robotics”.

67. Mr. Theerawath Phetpoon (2026, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Reinforcement Learning with Perception Awareness for Autonomous Drones”.

68. Mr. Dhamdhawach Horsuwan (2026, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Decentrialized Robot-Robot Communication”.

Current projects:

69. Mr. Kongkiat Rothomphiwat (2024-current, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Advanced Fault Detection andAutonomous Drone Safety System”.

70. Mr. Chayapol Hansanelak (2025-current, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Dung Beetle-inspired Locomotion Control”.

71. Mr. Worameth Nantareekurn (2025-current, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Centipede-inspired Locomotion Control”.

72. Mr. Run Janna (2025-current, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Terrain Classification and Beetle-inspired Locomotion Control”.

73. Mr. Kanut Tarapongnivat (2025-current, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Soft Manipulator with Adaptive Control”.

74. Mr. Nasree Hayeesamaae (2026-current, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Plastic Networks for Resilient Robot Locomotion”.

75. Mr. Pavaris Asawakijtananont (2026-current, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Neural Control and Plasticity for Adaptive Robot Locomotion”.

Diploma Thesis (Equivalent to Master Thesis):

Past project:

1. Ms. Silke Steingrube (2007, Physics, University of Göttingen): “Chaos Control in Neuromodules and Application to Gait Generation”.

PhD Theses:

Past projects:

1. Mr. Guanjiao Ren — PhD Internship from School of Automation Science and Electrical Engineering, Beihang University of China (2014): “Multiple CPGs-Based Control of Walking Machines” (Co-Supervisor).

2. Mr. Jan-Matthias Braun (2015, Physics, University of Göttingen): “Advanced Neural Control for Adaptive Orthotic Devices” (Co-Supervisor).

3. Mr. Sakyasingha Dasgupta: (2015, Physics, University of Göttingen): “Dynamics of Learning and Memory in Large Recurrent Neural Networks” (Main-Supervisor).

4. Mr. Xiaofeng Xiong (2015, Informatics, University of Göttingen): “Neuromechanical Model for Dynamic Walking” (Main-Supervisor).

5. Mr. Potiwat Ngamkajornwiwat (2020, Institute of Field Robotics, King Mongkut’s University of Technology Thonburi, Thailand): “Artificial Hormone Network for Adaptive Robots” (Co-Supervisor).

6. Mr. Nan-Sheng Huang (2020, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Neural network implementation on FPGA” (Co-Supervisor).

7. Mr. Nol Chindapol (2021, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Multi-scale Model of Coral Growth in the Context of Morphological Computation and Plasticity” (Main-Supervisor).

8. Mr. Peter Billeschou (2021, Engineering (Robot Systems), University of Southern Denmark, Denmark): “The development of a dung beetle-inspired robot for multiple functions” (Main-Supervisor).

9. Mr. Mathias Thor (2021, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Adaptive locomotion control of legged robots” (Main-Supervisor).

10. Mr. Sun Tao (2021, Nanjing University of Aeronautics and Astronautics (NUAA), Nanjing, China): “Adaptive sensorimotor coordination for self-organized locomotion and adaptation of legged robots” (Co-Supervisor).

11. Ms. Becky Steckhahn-Strohmer (2022, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Behavioural improvement of tactile sensing in a hexapod robot” (Co-Supervisor).

12. Mr. Chaicharn Akkawutvanich (2023, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Adaptive Neural Locomotion Control for Intelligent Biped Systems: From Bipedal to Lower Limb Exoskeleton Robots” (Main-Supervisor).

13. Mr. Muhammad Bilal Khan (2023, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “iCrawl: An Inchworm-Inspired Crawling Robot for Outer Pipe Inspection” (Main-Supervisor).

14. Mr. Jettanan Homchanthanakul (2023, School of Information Science and Technology, Vidyasirimedhi Institute of Science & Technology (VISTEC), Thailand): “ Neural Control,

Plasticity, and Memory for Bio-inspired Adaptive Locomotion on 3D Complex Terrain of Multi-segmented, Legged Robots" (Main-Supervisor).

15. Mr. Pongsiri Borijindakul (2024, Nanjing University of Aeronautics and Astronautics (NUAA), Nanjing, China): "Smart foot design and control for verstile climbing robots" (Main-Supervisor).

16. Mr. Worasuchad Haomachai (2024, Nanjing University of Aeronautics and Astronautics (NUAA), Nanjing, China): "High-level Decision Making for Complex Behavior of Gecko Robots" (Main-Supervisor).

17. Mr. Binggwong Leung (2024, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): "Neural Control of a Dung Beetle Robot" (Main-Supervisor).

18. Ms. Yanbin Zhang (2025, Nanjing University of Aeronautics and Astronautics (NUAA), Nanjing, China): "Neural Learning for Adaptive Robot Conrol" (Main-Supervisor).

19. Mr. Rujikorn Charakorn (2025, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): "Deep Reinforcement Learning for Visual-based Motor Control" (Main-Supervisor).

20. Mr. Naris Asawalertsak (2025, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): "Adaptive Neural Control for Soft Robots" (Main-Supervisor).

21. Mr. Donghao Shao (2026, Nanjing University of Aeronautics and Astronautics (NUAA), China): "Neural Control and Learning for Advanced Climbing Robots" (Main-Supervisor).

22. Mr. Vatsanai Jaiton (2026, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): "Neural control of autonomous drones for inspection" (Main-Supervisor).

Current projects:

23. Mr. Dong Yi (Nanjing University of Aeronautics and Astronautics (NUAA), China): "Adaptive Neural Control for Soft Object Manipulation of a Robot Arm"(Main-Supervisor).

24. Mr. Zang Guangyuan (Nanjing University of Aeronautics and Astronautics (NUAA), China): "Soft Gecko-Inspired Robots"(Main-Supervisor).

25. Mr. Puchong Soisudarat (School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Intelligent Service Robot for effective Human-Machine Interaction” (Main-Supervisor).

26. Mr. Thirawat Chuthong (School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Decentralized Neural Control with Force Feedback for Adaptive Locomotion of Legged Robots” (Main-Supervisor).

27. Mr. Tony Sermsrisuwan (School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Machine Learning for 3D Map-based Navigation” (Main-Supervisor).

28. Mr. Jawad Mehmood Butt (Engineering (Robot Systems), University of Southern Denmark, Denmark): “Adaptive Neural Control for Magnetic Soft Matter” (Main-Supervisor).

29. Mr. Danica Kristina Tan (Engineering (Robot Systems), University of Southern Denmark, Denmark): “Magnetic Soft Matter and Control for Industrial Robots” (Co-Supervisor).

30. Mr. Rodolfo Lian Paderon (2024-current, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “A Snake-inspired Robot with 3D Compliant Joints and Neural Control”.

31. Mr. Tanakit Jansom (2026-current, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Adaptive Neural Control for Exoskeletons”.

32. Mr. Dhamdhawach Horsuwan (2026-current, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Robot-Robot Communication and Cooperation“.

Student Projects

Past projects:

1. Mr. Birk Urmersbach — Bachelor Student (2009, Biology, University of Göttingen, Germany): “Single Insect-Like Leg with Adaptive Motion Control”.

2. Mr. Johannes Schröder-Schetelig — Diploma Student (2008, Physics, University of Göttingen, Germany): “Using Efference Copy and a Forward Internal Model for Adaptive Biped Walking”.

3. Mr. Tobias Jahn — Bachelor Student (2012, Physics, University of Göttingen, Germany): “Simple Sound Localization Using Three Microphones in a Plane and E-puck Interface”.

4. Mr. Felix Maischner, Mr. Henning Stark, Mr. Julius Strake, Mr. Vitali Telezki, and Mr. Marina Eckermann — Bachelor Students (2013, Physics, University of Göttingen, Germany): "Sound Localization and Obstacle Avoidance of E-puck mobile robots".

5. Mr. Ditlev Andersen — Master Student (2014, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Intelligent Control of a Semi-Active Suspension System for Improved Road Holding and Vehicle Handling".

6. Ms. Imara van Dinten (2014, AI4 project, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Moving problem solving robot(s) Multi agent A*".

7. Mr. Kenneth Korsgaard Meyer (2014, AI4 project, Engineering (Robot Systems), University of Southern Denmark, Denmark): "AI controller for a sailboat".

8. Mr. Giuliano Di Canio and Mr. Patrick Stolc (2014, AI4 project, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Exploring Energy Consumption of a Bio-inspired Robotic Leg with a Passive Tarsus Component: An Embodied AI approach".

9. Mr. Stoyan Stoyanov — Master Student (2014, AI4 project, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Energy Acquisition in Robots using Solar Power".

10. Mr. Carlos Moro Garcia (2015, Engineering (Robot Systems), University of Southern Denmark, Denmark): "A Software Framework for Artificial Intelligence".

11. Mr. Dominik Steven Weickgenannt (2015, AI4 project, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Action-Sequence Learning in Mobile Robotics".

12. Mr. Krzysztof Smyl (2015, AI4 project, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Obstacle Avoidance System Utilising Neural Receptive Fields Approach".

13. Mr. Michelangelo Setaro (2015, AI4 project, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Adaptive locomotion control of a hexapod robot".

14. Mr. Chris Tryk Lund Sørensen (2015, AI4 project, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Pushing object in simulation with a hexapod robot".

15. Mr. Timon Tomás (2015, AI4 project, Engineering (Robot Systems), University of Southern Denmark, Denmark): "Approximation of EMG/EEG signals with a Radial Basis Function Neural Network".

16. Ms. Nienke Nadine Bijma (2016, internship, Universität Kiel, Germany): "The dung beetle Geotrupes stercorarius as an inspiration for robot locomotion".

17. Mr. Theis Strøm Hansen and Mr. Mathias Thor (2017, individual study, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Extending the Walknet controller to manipulate objects”.

18. Mr. Almir Mehanovic (2017, individual study, Engineering (Software Engineering), University of Southern Denmark, Denmark): “Evolving robot morphology with genetic algorithms”.

19. Mr. Jevgeni Ignasov (2017, internship, Mechatronics, University of Southern Denmark, Denmark): “Robotic Foot Inspired by Insect Tarsus”.

20. Mr. Jettanan Homchanthanakul (2017, internship, Engineering (Robot Systems), Institute of Field Robotics King Mongkut’s University of Technology Thonburi, Thailand): “Using of artificial hormones to improve robot locomotion in changing environments”.

21. Mr. Siribhop Yooyongchuen (2017, student exchange, Engineering, King Mongkut’s University of Technology North Bangkok, Thailand): “A mobile robot with a lizard ear system”.

22. Mr. Saran Singhsathitsukh (2017, student exchange, Engineering, Sirindhorn International Institute of Technology, Thammasat University, Thailand): “Locokit Leg Redesign”.

23. Mr. Pulkit Saluja (2017, internship, Electronics and Communication Engineering, JECRC Univerisity, Jaipur, India): “Novel Foot Sensor Design for Legged Robots”.

24. Mr. Christian Koed Pedersen (2017, AI4 project, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Neural Control for Autonomous Collision Avoidance for Drones”.

25. Mr. Arthicha Srisuchinnawong (2018, internship, Nanjing University of Aeronautics and Astronautics (NUAA), Nanjing, China): “Application of an artificial hormone in a gecko robot”.

26. Mr. Natthiphong Yaidi (2018, internship, Nanjing University of Aeronautics and Astronautics (NUAA), Nanjing, China): “Design and control of a gecko robot with backbone joints”.

27. Mr. Kittipod Punthai (2018, internship, Nanjing University of Aeronautics and Astronautics (NUAA), Nanjing, China): “Simulation of a Dog Robot”.

28. Mr. Thanat Ngamwongsakollert (2018, internship, Nanjing University of Aeronautics and Astronautics (NUAA), Nanjing, China): “Tracking motion of gecko experiments for locomotion of a gecko robot”.

29. Mr. Matheshwaran Pitchai (2018, AI4 project, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Gait optimization of a six-legged walking dung-beetle robot using the Gaussian mixture model (GMM) and PI^2 algorithm”.

30. Mr. Ada Varga (2018, AI4 project, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Correlation-based neural control for obstacle avoidance”.

31. Mr. Jens Troels Nielsen and Mr. Jeppe Langaa (2018, individual study, Engineering (Robot Systems), University of Southern Denmark, Denmark): “Extending the pipebot controller”.

32. Mr. Matevz Celcer (2022, Engineering (Robot Systems), University of Southern Denmark, Denmark): “3D Neuro Visualization”.

Research assistant/engineer:

Past projects:

1. Mr. Chinnawat Chinnapun (2018–2019, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Robot system integration”.

2. Mr. Kawee Tiraborisute (2019–2020, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Robot hardware design (Freelander)”.

3. Mr. Jevgeni Ignasov (2020-2021, University of Southern Denmark, Denmark): “Neural proactive control for service robots (part of the SMOOTH project)”.

4. Mr. Thirawat Chuthong, (2019–2021, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Autonomous Pipe Climbing Robots”.

5. Mr. Potiwat Ngamkajornwiwat (2020-2021, Nanjing University of Aeronautics and Astronautics (NUAA), Nanjing, China): “Artificial Hormone Mechanisms for Autonomous Robots”.

6. Mr. Ricardo Alexandre Ribeiro Fonseca Rodrigues Do Carmo (2018–2021, University of Southern Denmark, Denmark): “Neural predictive information processing and visualization (part of the Plan4Act project)”.

7. Mr. Worachit Ketrungsri, (2022–2023, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Medical Robotics”.

8. Mr. Liu Yangjun, (2022–2023, NEUTRON lab, Nanjing University of Aeronautics and Astronautics (NUAA), Nanjing, China): “Robot vision”.

9. Mr. Tanyatep Tothong (2019-2022, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Autonomous Service Robots for Logistics”.

10. Mr. Tachadol Suthisomboon (2020-2023, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Robot foot design (Freelander/AVIS/MC-PIG)”.

11. Mr. Sujet Phodapol, (2019–2023, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Morphological Computation for Adaptive PIG (MC-PIG)”.

12. Mr. Kitti Phongaksorn, (2020–2023, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Robot Hardware Development for Adaptive Pipe Climbing Robots”.

13. Mr. Kongkiat Rothomphiwat (2019-2024, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Autonomous Drones for Object Transportation”.

14. Mr. Teerameth Rassameecharoenchai (2022–2024, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Computer Vision for Robotics”.

15. Mr. Atthanat Harnkhamen, (2019–2026, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Dual Arm Robot for Adaptive Manipulation”.

16. Mr. Wasuthorn Ausrivong, (2021–2025, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Adaptive Pipe Climbing and Quadruped Robot Control”.

17. Mrs. Thipawan Pairam, (2021–2026, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Robot Sensors and Electronic circuit Design”.

18. Mr. Arthicha Srisuchinnawong, (2020–2026, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Adaptive Neural Control and Learning for Legged

Robots". (2022–2023, ENS Lab, University of Southern Denmark, Denmark): " Long-term autOnomy For service robots in consTruction (LOFT)".

19. Mr. Worameth Nantareekurn (2022–2025, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): "Wall Climbing Robot and Electronic circuit Design".

20. Mr. Kanut Tarapongnivat (2022–2025, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): "Wall Climbing Robot and Robot Hardware Design".

21. Mr. Run Janna (2022–2025, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): "Wall Climbing Robot and Adaptive Control".

22. Ms. Manatsanan Trakulruangroj (2022–2025, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): "Machine Learning for Predictive Maintenance".

23. Mr. Krit Surintraboon (2025–2026, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): "Heterogeneous Robot Foot Profiles for Efficient Terrain Tranistions".

Current projects:

24. Ms. Natchaya Sricom (2022–present, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): "High-level Exoskeleton Control and Gait Lab System Integration ".

25. Mr. Matas Manawakul (2023–present, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): "Robot System Integration".

26. Mr. Sanpoom Punapanont (2023–present, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): "Hardware Design for Exoskeletons and Inspection Robots".

27. Mr. Saifa Meethong (2026–present, Research center for Advanced Robotics and Intelligent Automation, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Adaptive Control for Inspection Robots”.

Postdocs:

Past projects:

1. Dr. Jan-Matthias Braun (2017–2019, University of Southern Denmark, Denmark): “Neural predictive information processing (part of the Plan4Act project)”.

2. Dr. Danish Shaikh (2015–2017, University of Southern Denmark, Denmark): “Neural Predictive Control for Goal-directed Learning and Multi-scale Adaptation”.

3. Dr. Xiaofeng Xiong (2018–2021, University of Southern Denmark, Denmark): “Neural navigation control (part of the Dlife project)”.

4. Dr. Nat Dilokthanakul, (2018–2022, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Deep reinforcement learning for cognitive robotics (part of the Bio-inspired Robotics project)”.

5. Dr. Yang Li (2018–2022, Nanjing University of Aeronautics and Astronautics (NUAA), Nanjing, China): “Smart material for gecko-inspired robots (part of the NEUTRON project)”.

6. Dr. Binggwong Leung (Industrial Postdoc), (2024, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Dung Beetle Robot Control (part of the Bio-inspired Robotics project)”.

7. Dr. Pongsiri Borijindakul (Industrial Postdoc), (2024, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Tail Robotics (part of the Bio-inspired Robotics project)”.

8. Dr. Chaicharn Akkawutvanich (Industrial Postdoc), (2023–2026, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Wearable Robotics”.

9. Dr. Worasuchad Haomachai (Industrial Postdoc), (2024–2026, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “ Embodied Bio-inspired Control and Learning for Locomotion and Lifelong Adaptation of Legged Robots”.

10. Dr. Naris Asawalertsak (Academic Postdoc), (2025–2026, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “ Neural Control for Soft Robotics”.

Current projects:

11. Dr. Vatsanai Jaiton (Industrial Postdoc), (2026, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Spiking Neural Control for Autonomous Drones”.

12. Dr. Sombat Ketrat (Industrial Postdoc), (2020–present, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Robot and AI project management”.

13. Dr. Jettanan Homchanthanakul (Academic Postdoc), (2024–present, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Bio-inspired Robotics”.

14. Dr. Harn Sison(Academic Postdoc), (2024–present, School of Information Science and Technology, Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand): “Compliant Joints”.