

□ **프라운호퍼 IFF**

구분		내용
파견 정보	부서	Robotic Systems / Human-Centered Systems
모집 요강 (안)	학력	석사졸업, 박사과정, 박사졸업, 박사후연구원
	우대전공	Software engineering, mechanical engineering, robotics, electrical engineering
	우대경험	로봇 관련 학습, 연구
파견연구 계획(안)	연구주제	Robotics, human-robot collaboration, AI, safety
	연구내용	<ul style="list-style-type: none"> <li>- Transfer learning (sim2real), reinforcement learning to enable skill-based and dexterous robot manipulation</li> <li>- Simulation and model to assess the safety of collaborative robots</li> <li>- Development of fast-computing collision models and dynamic robot models</li> </ul>
	기대효과	Eager to work in diverse and interdisciplinary teams

□ 프라운호퍼 IPK

구분		내용
파견 정보	부서	Department of Automation
모집 요강 (안)	학력	석사과정, 석사졸업, 박사과정, 박사졸업, 박사후연구원
	우대전공	Computer Science, Robotics, Automation
	우대경험	Robot kinematics and dynamics, programming, machine learning
파견연구 계획(안)	연구주제	Imitation learning for Robotics, Error Handling, Contact-rich manipulation
	연구내용	Develop imitation learning and learning from demonstration methods (camera-based, force/torque-sensor based) to increase execution speed and data efficiency
	기대효과	The methods are applied to contact-rich robot manipulation (door opening, cabling) and show an improved speed or data efficiency in execution *We expect to produce open-source software and research publications with the work.

□ 올보르 대학교

구분		내용
파견 정보	부서	Department of Materials and Production
모집 요강 (안)	학력	석사과정, 석사졸업
	우대전공	로봇, AI, 자동화 관련 전공
	우대경험	<ul style="list-style-type: none"> <li>- Python, Ros</li> <li>- 자동화 및 로봇</li> <li>- 머신러닝, 딥러닝</li> </ul>
파견연구 계획(안)	연구주제	Research Activities onAutomation and Embodied AI
	연구내용	Cooperate with experienced researchers in the field of Human Robot Interaction, AI, modelling and Simulation, Production.
	기대효과	Expect interns to assist with data collection, experiment setup, and robotics programming. In terms of research, interns should be able to conduct literature reviews, contribute to ongoing projects, and potentially work on a small, well-defined research question that aligns with their developing skills and the team's objectives.

□ 오르후스 대학교

구분		내용
파견 정보	부서	Mechatronics and Dynamics
모집 요강 (안)	학력	석사졸업, 박사과정, 박사졸업, 박사후연구원
	우대전공	Mechanical, electrical, and computer engineering
	우대경험	<ul style="list-style-type: none"> <li>- Robotics and Control</li> <li>- AI &amp; Digital twin</li> <li>- Computer vision</li> </ul>
파견연구 계획(안)	연구주제	Any topic related robotics and control
	연구내용	Robotic Manipulation and Interaction with applications towards manufacturing, agriculture, health, energy etc. powered by AI and digital twin technology
	기대효과	Collaboration in conducting cut-edge research and publishing high-quality research papers

□ SDU

구분		내용
파견 정보	부서	The Faculty of Engineering, Maersk Mc-Kinney Moller Institute
모집 요강 (안)	학력	석사과정, 석사졸업, 박사과정, 박사졸업, 박사후연구원
	우대전공	Computer science, robotics, software engineering, data-science or related areas
	우대경험	<ul style="list-style-type: none"> <li>- AI/ML, Verification and Validation, modeling, simulation, optimization, system analysis and engineering, trajectory planning, software/system quality assurance.</li> <li>- Proficiency in programming skills (C/C++, Python, ROS, MATLAB, Simulink).</li> <li>- Application domains: Automation, Robotics, UAS, I4/I5, IoT, Cyber-Physical Systems.</li> </ul>
	필요 역량	<ul style="list-style-type: none"> <li>- Strong communication skills and teamwork capabilities, independence to lead an original line of research, English language fluency in both speaking and writing</li> <li>- The following experiences are beneficial: Publications, internship/academic exchange program, participating (inter)-national projects, working in industry</li> </ul>

구분		내용
파견 연구 계획(안)	연구주제	<ul style="list-style-type: none"> <li>- Error detection and prevention analysis (EDPA)</li> <li>- AI Robot Safety &amp; Security Analysis and Experimental Evaluation</li> <li>- Predictive Maintenance for Robotic applications</li> </ul>
	연구내용	<ul style="list-style-type: none"> <li>- Errors / faults prediction and prevention of robot applications using AI/ML technologies</li> <li>- A study on the design of reliable robotic systems to which AI/ML can be applied through the detection of potential errors and formal guarantees with a focus on verification and validation (V&amp;V) technologies.</li> <li>- Analysis of potential safety vulnerabilities and possible cyber-security attacks in AI robotics</li> <li>- Study on the model-based safety and security properties analysis methods, tools, and techniques in AI robotics domains</li> <li>- Build analyzable models of AI robot applications and conduct safety and security assessments based on the models by utilizing existing V&amp;V and simulation tools</li> </ul>
	기대효과	<ul style="list-style-type: none"> <li>- International workshop on Robotics Software Engineering</li> <li>- International conference on Intelligent Robots and Systems</li> <li>- International conference on Advanced Robotics</li> <li>- International Conference on Emerging Technologies and Factory Automation</li> </ul>