

北京邮电大学 本科毕业设计（论文）任务书

Project Specification Form

Part 1 - Supervisor

论文题目 Project Title	Design and development of a human-agent collaboration model for situation-awareness in cockpit		
题目分类 Scope	Software Development	Implementation	Software and Hardware
主要内容 Project description	To fulfil this project, you are expected to familiarize yourself first with the field of human-computer interaction (HCI) and the related specific areas, such as human-agent collaboration, situation awareness, context awareness, implicit interaction, natural interaction, HCI in cockpit etc.. You are then expected to do requirement analysis through user-centered methods and come up with the pain points and key requirements of human-agent collaboration in cockpit. Grounded in requirements, you need design and develop a system to solve the pain points uncovered previously and simulate or implement a system. Students applying for this project are required to design a software to support the collaboration between human and agents in intelligent vehicles. The software is expected to be user-centered and user-friendly to ensure the quality of experience of human drivers.		
关键词 Keywords	human-agent collaboration, context awareness, situation awareness, implicit interaction		
主要任务 Main tasks	1 Literature review on human-agent collaboration, situation awareness, context awareness, implicit interaction, natural interaction, HCI in cockpit		
	2 Pain points and requirement analysis		
	3 Design and develop a system with intelligent agent to facilitate the teaming work of human and agent		
	4 Conduct experiment to evaluate the system		
主要成果 Measurable outcomes	1 Feature list of the software supporting human-agent collaboration in intelligent vehicles		
	2 An interactive machine-learning model supporting human-agent collaboration		
	3 A software to demonstrate the performance of the interactive machine-learning model		