EMBARGOED TILL DELIVERY OF SIEW OPENING KEYNOTE SPEECH BY MINISTER FOR TRADE AND INDUSTRY CHAN CHUN SING ON 30 OCTOBER 2018 STARTING 9AM

ANNEX

No.	Title	Description	Project Team
1	An Online Process Monitoring Scheme to Improve the Accuracy of the Tube Boiler Inspection Process.	Current situation: The current method of inspecting boiler tubes for defects requires significant downtime, which represents substantial lost revenue. Aim: To develop an online condition monitoring system that will allow for automated plant boiler inspections. The system is capable of detecting the onset of boiler defects by employing innovative sensors, data analytics, and machine learning technologies. The aim of the system is to reduce inspection time and hence, overall downtime of the boiler.	 Principal Investigator: Dr Emily Hao Jianzhong, Institute for Infocomm Research (I²R) Co-Investigators: Dr Li Xiaoli, I²R Dr Xiang Shili, I²R Dr Wang Yixin, I²R Dr Jiang Wenyu, I²R Assoc Prof Steven Hoi, Singapore Management University Collaborator: Dr. Eddie Tan K M, TechnoSpex Pte Ltd
2	Automated Pipeline Monitoring with Unmanned Aerial Imaging System	Current situation: Aboveground pipeline condition monitoring and inspection currently requires considerable manpower and capital Aim: To develop an autonomous unmanned aerial vehicle (UAV), equipped with video cameras and sensors, capable of performing automated visual inspection and leak detection for pipelines. The aim is for the system to cover large areas with minimal manpower, thus significantly reducing operational costs.	 Principal Investigator: Dr Zheng Jinghong, I²R Co-Investigators: Mr Lu Weiyao, Flare Dynamics Pte Ltd Mr Kevin Young, DNV GL

ABOUT R&D PROJECTS AWARDED GRANTS UNDER THE SEETP

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3	Development of Absorption	Current situation: Many industry processes	Principal Investigator: Prof Yang Chun Charles,
	Chiller System	consume enormous	Nanyang Technological
	with Optimised	amounts of energy and	University, Singapore (NTU
	Heat Exchange Network for	release large amounts of waste heat. Current heat	Singapore)
	High Utilisation	recovery systems are often	Co-Investigator:
	of Low Grade	inefficient as a significant	Assoc Prof Tong Yen Wah.
	Waste Heat	amount of useful waste heat	National University of
		is released to the	Singapore
		environment There are	Chigaporo
		opportunities to harness this	Collaborator:
		low-grade waste beat and	Prof Wang Ruzhu, Shanghai
		convert it into useful	liao Tong University
		resources such as electricity	
		and chilled water	
		and chilled water.	
		Aim : To develop a novel	
		absorption chiller with	
		sociation cooling and other	
		innovative features. The sim	
		of the evotors is to enhance	
		of the system is to enhance	
		overall efficiency of an	
		industrial plant by enabling	
		recovery of low-grade waste	
		heat to produce chilled	
		water.	