

2026 Net Zero Tech International Contest

Energy Division Excellence

Project ID	Project Title	Position	Name	Representative Country / Region	School	Department
E001	Carbon dioxide plume geothermal AI economic analysis system	Advisor	Hsieh Bieng-Zih	Taiwan	National Cheng Kung University	Department of Resources Engineering
			Wu Cheng-Yueh			
			Huang Yun-Hsun			
		Leader	Pan Yi-Cheng			
		Member	Chang Shih-Hsun			
			Xie Ya-Ting			
			Liu Hao-Yu			
			Cheng Chen			
E002	Acoustic Monitoring and Intelligent Diagnostic System for the Safe and Efficient Operation of Wind Turbines	Advisor	Kim Tiow Ooi	Singapore	Nanyang Technological University	School of Mechanical and Aerospace Engineering
			Mingxu Su		University of Shanghai for Science and Technology	School of Energy and Power Engineering
			Wu Yang		Nanyang Technological University	School of Electrical and Electronic Engineering
		Leader	Bingchuan Sun			
		Member	Liu Zigang			
			He Chao			

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E003	A Respiration and Photosynthesis-Like Li-CO ₂ Battery System	Advisor	Lee Yi-Hsuan	Taiwan	National Taipei University of Technology	Mechanical Engineering
			Lin Chun Che			Department of Molecular Science and Engineering
			Wei Yang			Chemical Engineering and Biotechnology
		Leader	Weng Sheng-Qing			Graduate Institute of Manufacturing Technology
		Member	You Tz-Wei			Graduate Institute of Organic and Polymeric Materials
			Cheng Yi-Ting			Department of Molecular Science and Engineering
			Lin Yu-Shan			Chemical Engineering and Biotechnology
			Lin Wei-Ting			Graduate Institute of Mechatronic Engineering
			Naqsyahbandi Fajar			Graduate Institute of Organic and Polymeric Materials
			Arumugam Vignesh			
E005	Integrated Thermoelectric-Assisted Cascaded Photoelectrocatalytic Microreactors for Solar-Driven Hydrogen Generation	Advisor	Lin Zong-Hong	Taiwan	National Taiwan University	Department of Biomedical Engineering
		Leader	Nahak Bishal Kumar			
		Member	Roy Chowdhury Jaba			
			Rangarajan Aishwarya			

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E006	5-cell stack anion exchange membrane water electrolysis toward practical industrial application: using ball-milling fabricated NiCo-MOF as electrocatalysts	Advisor	Chen Jian-Zhang	Taiwan	National Taiwan University	Institute of Applied Mechanics/Graduate School of Advanced Technology
			Chen Chih-Hung			Institute of Applied Mechanics
			Cheng I-Chun			Graduate Institute of Photonics and Optoelectronics/Department of Electrical Engineering
		Leader	Hsiao Kai-Wen			Nanoengineering and Nanoscience
		Member	Tseng Chia-Hsin			Institute of Applied Mechanics
			Yan Pei-Yi			Nanoengineering and Nanoscience
			Kuo Chih-Yen			Institute of Applied Mechanics
			Chiu Ping-Han			Nanoengineering and Nanoscience
E007	From Carbon Capture to Energy Storage: CO ₂ -Derived Biomass Porous Carbons for Sustainable Supercapacitors	Advisor	Lin Jarrn-Horng	Taiwan	National Tsing Hua University	College of Sustainability
		Leader	Wang Po Hung		National Cheng Kung University	Academy of Innovative Semiconductor and Sustainable Manufacturing
		Member	Shih Yun-Jui		National University of Tainan	Department of Materials Engineering
			Lin Chin-Tang			material science

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E008	Smart Hybrid Microgrid Hub: Second-Life EV BMS + Volt-VAR Smart Inverter	Advisor	Chua Kein Huat	Malaysia	Universiti Tunku Abdul Rahman	Department of Electrical and Electronic Engineering
		Leader	Tan Yee Qin			
		Member	Kong Joo lee			
			Lee Shao Hong			
E012	Triple Energy Regeneration—Waste Heat from Methanol Partial Oxidation Hydrogen Production Applied to Torrefaction and Thermoelectric Chips	Advisor	Chen Wei-Hsin	Taiwan	National Cheng Kung University	Department of Aeronautics and Astronautics
			Lee Kuan-Ting		Tunghai University	Department of Chemical and Materials Engineering
		Leader	Hsu Chia-Yi		National Cheng Kung University	International Degree Program on Energy Engineering
		Member	Lai Guan-Ting			Department of Aeronautics and Astronautics
			Kuo Shang-Rong			
			Lin Rui-Cheng			
			Liao Xian-Cheng			International Degree Program on Energy Engineering

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E013	Design and Experimental Validation of a Scaled Prototype for a Wave Energy Conversion System with an Open Resonant Caisson	Advisor	Yu-Hsun Chen	Taiwan	National Taiwan University of Science and Technology	Mechanical Engineering
			Chen-Yang Lan			Department of Mechanical Engineering
			Wen-Yang, Hsu		National Taiwan Ocean University	Department of Harbor and River engineering
			Jiahn-Horng Chen		National Taiwan Ocean University	Department of Systems Engineering and Naval Architecture
		Leader	Hsu-En, Yen		National Taiwan University of Science and Technology	Bachelor Degree Program of Applied Science and Technology
		Member	Chang Yoyu		National Taiwan Ocean University	Department of Harbor and River engineering
			Wangyuchen			
			Li Yi-Ting		National Taiwan University of Science and Technology	Mechanical Engineering
			Ching-Tso Tu			
			Hsu Chiawei			
			Su Yu-Jun			
E015	Terra-Glyph University: A Net-Positive Campus in Denver through Terracotta Rainscreen, Transpired Solar Collector (TSC), Anidolic Zenithal Collector (AZC), and Integrated Radiant-DOAS HVAC system	Advisor	Candra Dewi Ova	Indonesia	Universitas Indonesia	Architecture
			Yatim Ardiyansyah			Mechanical Engineering
			Heidy Sekardini			Architecture
		Leader	Stefany Kurniawan Janice			Architecture

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		Member	Rehansyah Achmad			Mechanical Engineering
			Rahma Firamadhina			
			Ekano Nazla			
			Agustiana Belinda			
E016	Decarbonizing Solar Energy Through Humidity-Tolerant Perovskite Fabrication	Advisor	Kulkarni Ashish	India	Indian Institute of Technology Hyderabad	Chemistry
			Gadia Mahak			Industrial Chemistry
		Member	Maini Udit			Mechanical and Aerospace Engineering
			Mohammed Raqi			Industrial Chemistry
			Yug Nikesh Gandhi			Engineering Physics
E020	Transforming Municipal Solid Waste Incineration Fly Ash and Washing Wastewater into Net-Zero Hydrogen: A Dual-Waste Valorization Approach	Advisor	Chiang Kung-Yuh	Taiwan	National Central University	Graduate Institute of Environmental Engineering
		Leader	Zhou Wan-Jia			
		Member	Palanisamy Geetha			
			Lin Po-Yuan			
			Irsyad Barqi Muhammad			