

2026 Net Zero Tech International Contest

List of Final Contest Teams-Energy

Project ID	Project Title	Position	Name	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	Malaysia	Nanyang Technological University	School of Mechanical and Aerospace Engineering
			Mingxu Su	China	University of Shanghai for Science and Technology	School of Energy and Power Engineering
			Wu Yang	Singapore	Nanyang Technological University	School of Electrical and Electronic Engineering
		Leader	Bingchuan Sun	China		
		Member	Liu Zigang	China		
			He Chao	Singapore		
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	Indonesia		Graduate Institute of Organic and Polymeric Materials
			Arumugam Vignesh	India		
E004	Multiscale Design of a HEO-Catalyzed Ammonia Cracking Reactor and SOFC Green Power System Augmented by Digital Twin Visualization	Advisor	Hung Wei-Hsuan	Taiwan	National Central University	Graduate Institute of Chemical and Materials Engineering
			Lee Sheng-Wei			Graduate Institute of Materials Science and Engineering
			Wang Wei-Jyun			Chemical and Materials Engineering
			Gong Cihun-Siyong			Department of Electrical Engineering
		Leader	Ding Si-Han			Graduate Institute of Materials Science and Engineering
		Member	Yu Tsal-Hsuan			Graduate College of Sustainability and Green Energy
			Chang Hsiu-Yuan			Graduate Institute of Materials Science and Engineering
			Chen Neng-Di			Graduate Institute of Chemical and Materials Engineering
			Qiu Yu-Min			Department of Electrical Engineering
			Lai Min-Chi			
			Chou Tsung-Yi			
			Lu Yu-En			

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	India		
		Member	Roy Chowdhury Jaba			
			Rangarajan Aishwarya			
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
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	

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			
E009	Low-Carbon GaN PEC Hydrogen Generation: from Seawater to Space	Advisor	Chen Yu-Bin	Taiwan	National Tsing Hua University	Department of Power Mechanical Engineering
		Leader	Hung Yu-Chien		National Taiwan University	Department of Mechanical Engineering
		Member	Kang Hao-Yu			
			Cheng I-Chun			
E010	Sprout Solid-state Power Research for Ultra-safe Technology	Advisor	Hwang Bing Joe	Taiwan	National Taiwan University of Science and Technology	Chemical Engineering
			Huang Chen-Jui			Graduate Institute of Applied Science and Technology
		Leader	Chang Chia-Yu			Chemical Engineering
		Member	Lin Yi-Chen			Graduate Institute of Applied Science and Technology
			Yeh Tsung I			
			Huang Yu-Chun			
E011	High Efficiency, High Power Density, Fast Response Power Supply for Semiconductor Plasma Generation	Advisor	Lai Jih-Sheng	United States	Virginia Polytechnic Institute and State University	Electrical and Computer Engineering
			Chang Edward Y.	Taiwan	National Yang Ming Chiao Tung University	Department of Material Science
			Hsieh Hsin-Che	Taiwan	Virginia Polytechnic Institute and State University	Electrical Engineering
		Leader	Lim Christopher	United States		Electrical and Computer Engineering
		Member	Liu Hao-En	Taiwan		
			Rai Ganesh	Nepal	National Yang Ming Chiao Tung University	International College of Semiconductor Technology
			Hong Wei-Jhe	Taiwan		Mechanical Engineering
			Hsieh Yueh-Tsung			Institute of Pioneer Semiconductor Innovation
			Li Sheng Chieh			

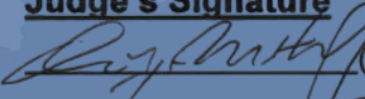
E012	Triple Energy Regeneration—Waste Heat from Methanol Partial Oxidation Hydrogen Production Applied to Torrefaction and Thermoelectric Chips	Advisor	Chen Wei-Hsin	Taiwan	National Cheng Kung University	Department of Aeronautics and Astronautics
			Lee Kuan-Ting		Tunghai University	Department of Chemical 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			International Degree Program on Energy Engineering
E013	Flexible and Portable Perovskite Photovoltaics	Advisor	Chen Shangshang	China	Nanjing University	Chemistry
			Yang Beichen			
		Member	Cen Jingxi			
			Pan Kongjia			
			Guo Xiangliang			
			Wang Lingyuan			
E014	HOMeS: a bi-porous facade evaporative panel for energy-efficient building cooling	Advisor	Lu Zhengmao	China	EPFL , Switzerland	Institute of Mechanical Engineering
		Leader	Rouaze Gautier	France		
		Member	Khodabandeh Farkhondeh	Iran		
			Mutschler Léo	Switzerland		
			Grané Páez Maria	Spain	Universitat Politècnica de Catalunya	Industrial Engineering
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
		Leader	Stefany Kurniawan Janice			Architecture
		Member	Rehansyah Achmad			
			Rahma Firamadhina			

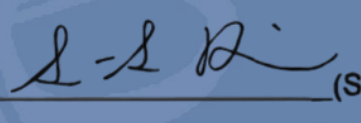
			Ekano Nazla			
			Agustiana Belinda			
			Rafi Fairuzi Mochammad			Mechanical Engineering
E016	Decarbonizing Solar Energy Through Humidity-Tolerant Perovskite Fabrication	Advisor	Kulkarni Ashish	India	Indian Institute of Technology Hyderabad	Chemistry
		Leader	Gadia Mahak			Industrial Chemistry
		Member	Maini Udit			Mechanical and Aerospace Engineering
			Mohammed Raqi			Industrial Chemistry
			Gandhi Yug			Engineering Physics
E017	Wastewater-Derived Fuel to Power Conversion Using High Performance Multi Fuel Protonic Ceramic Fuel Cells	Advisor	Tseng Chung-Jen	Taiwan	National Central University	Hydrogen Energy Research Center
		Leader	Lan Po-Kai			Department of Mechanical Engineering
		Member	Lin Tzu-Yun			Department of Sustainability and Green Energy
			Lin Po-Yu			Institute of Energy Engineering
			Peng Yi-Jou			
E018	Tsing Hua No.1 (TH-1): From Residual Agroforestry Biomass to Pinecone-Derived Hard-Carbon Anodes for Lithium-Ion Batteries	Advisor	Lin Tzu-Ying	Taiwan	National Tsing Hua University	Department of Materials Science and Engineering
		Leader	Tseng Hsuan-Kai			
		Member	Su Liang-Yi			
			Kuo Chih-Tsui			
			Chen Yu-Wei			
E019	Development of a Modular Rotor Floating Wind–Solar Hybrid System for Taiwan Offshore Applications	Advisor	Kau Tung Ma	Taiwan	National Taiwan University	Department of Engineering Science and Ocean Engineering
		Leader	Chu-Hu Hsueh			
		Member	Chung-Yu Chen	Malaysia		Department of Mechanical Engineering
			Jia Ka Lam	Taiwan		Department of Engineering Science and Ocean Engineering
			Bo-Chih Yang			
E020	Transforming Municipal Solid Waste Incineration Fly ash and Washing		Guei-Yun Liaw			
		Advisor	Chiang Kung-Yuh	Taiwan	National Central University	Graduate Institute of Environmental Engineering
		Leader	Zhou Wan-Jia			

	Wastewater into Net-Zero Hydrogen: A Dual-Waste Valorization Approach	Member	Palanisamy Geetha	Indonesia		
			Lin Po-Yuan	Taiwan		
			Irsyad Barqi Muhammad	Indonesia		

(Total: 20 Teams; 7 Pages)

Judge's Signature

 (Mao-Hsiung Chiang)

 (Chih-Huang Lai)  (Chih-Wen Liu) ·  (Shu-San Hsiau)

 (Leigh Aldous) ·  (David Kuo)

July 8, 2026