

Technical Visit to EAST (Experimental Advanced Superconducting Tokamak) of the Chinese Academy of Sciences

From 17 to 20 September 2025, we were honoured to co-organise a four-day delegation to EAST (Experimental Advanced Superconducting Tokamak) (全超導託卡馬克核融合實驗裝置), led by Ir Alice Chow, President of the HKIE and Ir. Herman Tsui, Chairman of our society.

A centerpiece of the visit was EAST — the world’s first fully superconducting tokamak—whose recent performance has reshaped the fusion landscape. On 20 January 2025, EAST sustained a high-confinement plasma for 1,066 seconds, its first run beyond the 1,000-second mark for high-quality operation and a leap past its 2023 benchmark of 403 seconds. The result stands as a clear step toward viable, long-duration fusion power.

Our 26-member delegation engaged with a broad cross-section of Hefei’s research ecosystem. The itinerary included the Hefei Scientist Spirit Education Base (科學家精神教育基地), the High Magnetic Field Laboratory (強磁場裝置), the Fusion Innovation Exhibition Hall (聚變創新展覽館), the EAST “Artificial Sun” (人造太陽EAST 裝置), and the construction site of Burning Plasma Experimental Superconducting Tokamak (BEST) (緊湊型聚變能實驗裝置). An in-depth exchange session with local experts examined roadmaps, engineering challenges, and collaboration opportunities on the path to practical fusion power.

The delegation also visited Zero Gravity Aircraft Industry(零重力飛機工業 (合肥)), an electric-aviation innovator serving China’s growing low-altitude economy. Highlights included a focused product line encompassing discovery-flight and patrol platforms, an amphibious model for water operations, and concepts targeting scenic tourism at scale, short-hop city pairs, emergency response, and broader urban air mobility. The designs emphasise VTOL capability, passenger comfort, extended range, and higher cruise speeds appropriate for dense urban corridors.

We extend our deepest gratitude to HKIE President Ir Alice Chow for her leadership, HKIE Nuclear Division for their partnership, CLP Power Hong Kong Limited for their generous support, enabling this invaluable learning opportunity for our members.



Caption: Ir Alice Chow (Right), President of the HKIE, and Ir Prof. Herman Tsui (Left), Chairman of the Hong Kong Nuclear Society, are in eVTOL aircraft

