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Editorial

A Promising World of Civilization

Yong Yuan

Department of Geotechnical Engineering College of Civil Engineering, Tongji University, China

*Correspondence to: Chang Liu, Email: yuany@tongji.edu.cn

Civil engineering is one of the oldest engineering disciplines, from making use of natural shelters that allow human beings to thrive at ancient time, to diversity buildings and facilities of modern cities that provide dynamic activities at nowadays. The man-made wonders, such as Roman Aqueducts conveying water for daily usage of citizens and Dujiangyan Irrigation System draining off floodwater, built thousands of years ago, irrigating farms and providing water resources for more than 50 cities without blocking dam to the Mingjiang, till last century milestones in construction of Goldengate Bridge, Channel Tunnel, and Burj Khalifa skyscraper in the beginning of this century. Urbanization is marked by civil engineers on design, construction, and maintenance in providing most essential houses, theaters, stadiums, and transportation via roads, railways, airports, harbours, and water management. Meanwhile energy is always with civilization in every way. However, buildings are the main consumer of energy, and construction contributes about 40% of globe CO2 emissions which is the main reason of climate change.

Energy is always critical during the process of human civilization. Starting from the use of woods to cook and heating house, making use of wind or water power to run mill, natural energy was gradually dominated with fossil energy, which contributes 75% of greenhouse gas emissions, mining coal or extracting oil is one aspect of civil engineer's works, rather than building power plants or hydraulic power stations. Energy research is frontier not limited to engineering but science, to develop new form of energy, to explore renewable energy, to balance energy use, and to storage energy, synergizing with civil engineering would be the dominated theme for a sustainable future.

There are plenty of journals discussing wide topics on individual innovation and evolution of either civil engineering or energy research. This journal intends to synergy the two fields together as the world transitions toward sustainability, resilience, and decarbonization. In fact, civil engineering and energy research are deeply interconnected fields, whether in ancient age or current time. The generation, transition, and storage of renewable energy like wind, solar, hydro, geothermal, green hydrogen and others are always incorporated with civil engineering to constitute new forms of infrastructures. Negative emissions in civil construction would also extend the scope and depth incorporate with energy technology.

Civil and Energy Research aims to provide a high-level academic exchange platform for academic researchers, engineers and practitioners in the fields of civil engineering and energy around the world, and publish the latest scientific research results and technological advances. This journal pays special attention to the intersection and integration of civil engineering and energy, and welcomes original research, review articles, technical reports, case studies in related fields. We expect your contributions for these increasing and charming areas, in benefit and promotion of civilization.

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