Special Issue on Advanced Sensing Technologies for Green Energy

Call for Papers

Climate change is one of the serious crises confronting our planet Earth. Natural disasters have become a norm in recent years owing to excessive greenhouse emissions of gases, such as carbon dioxide from fossil fuels and methane from animal farms. Thus, governments are promoting urgent net-zero initiatives, for example, the use of electric cars, wind turbine generators, roof-top solar panels, and solar farms; hydrogen energy storage; and carbon capture. However, compared with traditional energy sources, none of the above technologies are mature, affordable, or ready for mass adoption. One key difficulty that lies ahead is the precise real-time monitoring of physical parameters in green-energy systems. Advanced sensing technologies will play a crucial role in the global net-zero campaign.

This Special Issue is addressed to all types of advanced sensors designed for green-energy applications, for example:

- Advanced sensors in electric cars
- Advanced sensors in smart cities and smart transportation
- Advanced sensors in solar energy
- Advanced sensors in smart agriculture
- Advanced sensors in geothermal energy
- Advanced sensors in animal farms for food safety, greenhouse gas monitoring, etc.
- Advanced gas sensing in fuel cell batteries and hydrogen energy storage
- Structural condition monitoring in wind turbine generator

• Energy usage monitoring and waste control in smart buildings and smart industrial process

• Precision sensing in smart grids for optimum power distribution and storage

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