

Environmentally Sustainable Electromagnetic Energy Conversion Systems

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Keywords

Electric machinery, Electromagnetic compatibility (21010), Renewable energy (64030), Unused energy (64050), Sustainable development (64060)

Research Topics

- Energy harvesting systems using renewable, unused, and sustainable energy
- Personal mobility systems (mainly power-magnetic systems)
- Smart grid and smart community engineering for sustainable development

Research Seeds

The main cause of global warming is human activity, which releases carbon into the atmosphere, most importantly the burning of fossil fuels to move cars, generate electricity, and operate our homes and businesses. Therefore, a transition is expected from a fossil energy society to a non-fossil (renewal, unused, and sustainable) energy society, and building a clean energy economy by investing in efficient energy technologies, industries, and approaches are expected.

- Investigating of small electrical power generators using renewable, unused, and sustainable energy.
- Evaluating designed electrical power generators and motors
- Evaluating of the experimental electrical power generators and motors.
- Investigating of the personal mobility systems and motor drives.
- Smart-communities with distributed power generator and smart transportation systems

Related Technology