## Research Areas



Structural Engineering is art of economically designing buildings, bridges and other structures.



Geotechnical research provides insight into the interaction and performance of structures with earth, such bearing failures, settlement damage



Transportation engineering refers to plan, design, build, operate and maintain the systems of transport.



Environmental engineering focuses on the ways to minimize the effects of pollution, global warming, acid rain, automobile emissions, ozone depletion etc.



Water resources engineering is the quantitative study of the hydrologic cycle — the distribution and circulation of water linking the earth's atmosphere, land and oceans.



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# CERI

### CIVIL ENGINEERING RESEARCH INSTITUTE BROCHURE

committed to publishing high-quality research and phenomenal works from academicians, scientists & engineers.

#### CIVIL ENGINEERING RESEARCH INSTITUTE (CERI)

Civil Engineering program is in need of a thorough research in the undergraduate study. This may be experimental investigations, slope stabilities, sustainable technologies or load analysis. To encourage students for research work, Department of Civil Engineering, University of Information Technology and Science has established a research wing named "CIVIL ENGINEERING RESEARCH INSTITUTE (CERI)" in March 2019.

#### VISION

To be a reliable research institution, with an international reputation while paying attention to local values in the development, with the application of civil engineering to improve the quality of life and civilization.

#### ADVISORY AND EXTENSION SERVICES

- Public Transport System
- Road Safety and Accident Investigation
- Environmental Hazard Mitigation
- Collaboration with WaterAid Bangladesh and United International University (UIU)
- Collaboration with Centre for Injury Prevention and Research Bangladesh (CIPRB)

#### MISSION

- Partners with the research community to create a culture of high achievement
- Promotes shared responsibility, the ethical conduct of research, and compliance
- Enhances researchers' abilities to obtain and manage grants
- Strategically invests in promising research and researchers
- Creates integrated services, transparent research administration, infrastructure, and streamlined processes
- Develops strong relationships with sponsors
- Enhances the ability to perform research in a global community
- Supports strong infrastructure for interdisciplinary research





#### MAJOR RESEARCH AREAS

- Structural Engineering
- Environment Engineering
- Geotechnical Engineering
- Transportation Engineering
- Water Resources Engineering
- Construction Engineering & Management
- Road Safety and Accident Research

#### Some of the Recent Research Publications of CERI Members

- Md. Hasan Imam, Md. Mohiuddin Ahmed, Aysha Akter, Tarikul Islam, Subrata Roy, Maqsuda Haque, Experimental Review for Suitability Study of Natural Coarse Aggregates (stone chips) and Recycled Coarse Aggregates in Structural Concrete, International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056, Page 1469-1473/Volume: 06 Issue: 08
- Md. Mohiuddin Ahmed, Aysha Akter, Subrata Roy. "Pushover Analysis of RCC Buildings with Different Types of Shear Walls and Different Number of Spans by Frame Elements Based Model Method", International Journal of Science and Research (IJSR), Volume 8 Issue 8, August 2019, 788 – 792
- Rahman, M, Sakib, S.S., Sabbir, A. and Hasan. M., "Combined Effects of Maximum Aggregate Size, W/C and Cement Content Variations on Compressive Strength of Concrete Made with Recycled Brick Aggregate", 6th International Conference on Civil Engineering for Sustainable Development (ICCESD 2022), 10 - 12 February 2022, Khulna, Bangladesh