

Departmental Seminar

Seminar Title	: A Comparative Investigation on Liquefaction Behaviour of Waste Foundry Sand and Natural River Sand
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Venue	: CE Seminar Hall
Date and Time	: 31 Jul 2025 (10:30 AM)
Abstract	: Waste Foundry Sand is a residue of Foundry Sand generated due to casting of metals. This by-product is disposed by industries as a waste material. Some studies indicate that waste foundry sand when used can influence workability, strength and durability characteristics of built structures and sometimes can offer improved properties compared to natural river sand. Very few studies have been reported on the liquefaction behaviour of waste foundry sand and its use as a replacement of natural river sand to reduce exploitation of natural resources. Present study investigates on the liquefaction behaviour of waste foundry sand under dynamic loading conditions so that it can be compared with natural river sand. To study the behaviour of waste foundry sand, series of cyclic triaxial tests were conducted on samples by considering confining pressure and strain amplitude as variables, maintaining full saturation. Samples were prepared corresponding to 50% relative density and frequency of 1 Hz.