

Fall 2018

CE 615-101: Infrastructure and Facilities Remediation

Giri Venkateela

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JOHN A. REIF, JR. DEPARTMENT OF
**CIVIL AND ENVIRONMENTAL
 ENGINEERING**



**CE 615 - Infrastructure and Facilities Remediation
 Section 101**

Fall 2018

Text: Feld, Jacob and Carper, Kenneth, Construction Failure, 2nd Edition, Wiley, Interscience, ISBN: 0-471-57477-5
 and other related resources.

Instructor: Adjunct Professor Giri Venkateela: email address: venkitee@njit.edu
 Office Hours by Appointment Only

Prerequisite: Graduate standing in Civil Engineering and basic knowledge of structures, and material science.

Course Description: Examine the methodology of inspection, field testing, evaluation and remediation of existing infrastructure and facilities, which include pipelines, tunnels, bridges, roadways, dams and buildings. Typical material distress and failure scenarios will be covered with remediation options through the use of case studies.

September 6	Introduction	Term Project team selection
September 13	Concrete basics	
September 20	Concrete testing and repair	
September 27	Structural Steel	
October 4	Timber	
October 11	Masonry (midterm review)	
October 18	Exam-1	Midterm
October 25	Dams, Bridges, Tunnel	
November 1	Pavements, Foundations, pipelines	
November 8	Guest lecture	
November 15	Infrastructure condition assessment tools	
November 20	Term paper presentation	Term paper presentation
November 22	Thanksgiving (Holiday)	
November 29	Case studies	Term Paper due
December 7	Infrastructure failures during construction (Final review)	
December 13	Reading Day	
December 21 st	Exam-2	Final Exam

MidTerm 25%
Final 25%

Term Paper/ Presentation	40%
Homework and Quizzes	10%

* The NJIT Honor Code will be upheld, and any violations will be brought to the immediate attention of the Dean of Students.

* Any modifications or deviations of the syllabus throughout the semester will be made through consultation and agreement with the class.