

Senior Design Project Description for SPRING 2016

Project Title: Impulse Response Striker (EPRI_IMPLS)

Supporter: EPRI

Supporter Technical Representative: ASSIGNED

Faculty Mentor: _____ ASSIGNED TBD (check one)

Single Team Dual Team _____ (check one)

Personnel (EN/ET): _____ E, _____ Cp, _____ Cv, 4 M, _____ SE

(Complete if the number of students required is known)

Expected person-hours: (250 per student)

Description of Project:

Currently non-destructive testing of concrete structures utilize a person manually striking the concrete surface with a hammer. Because the blow is manual there is no method to provide the same force with each blow. The purpose of this project is to develop a mechanism that can provide a repeatable blow to the concrete.

Initial Project Requirements (e.g. weight, size, etc.):

The hammer mechanism must be remotely operated. The device must be capable of delivering a consistent and repeatable blow to the surface of the concrete structure for impulse response non-destructive testing. By developing a remotely operated hammer the impulse response technique could be delivered to areas that were very remote or unsafe personnel to inspect.

Expected Deliverables/Results:

An operational and tested prototype shall be provided. An operation manual must be included with the device.

List here any specific skills or knowledge needed or suggested (If none please state none):

None