

Nondestructive Testing and Evaluation/July 20, 2017

Speaker: Armen Tajirian

1. Basic Science

- i. Elasticity – Young's Modulus
- ii. Density variations
- iii. Ground Penetrating Radar (GPR) – hyperbolas + dielectric compare to X-ray
- iv. Ultrasonic/Pulse Velocity for concrete 12,000 ft/sec

2. Demonstrations

- i. GPR
- ii. Ultrasonic
- iii. Moisture meter
- iv. Schmidt Hammer
- v. Borescope

3. Case Studies

- i. Bronze pedestal
- ii. Post-tensioning concrete slabs
- iii. Air voids in concrete
- iv. Cladding
- v. Miscellaneous

4. Walks on Campus