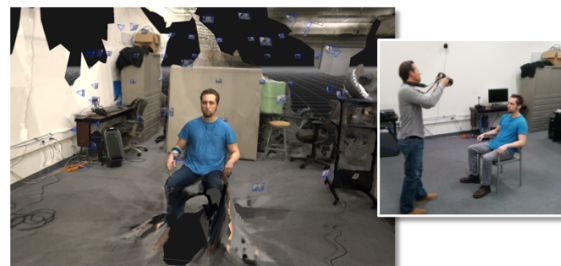


## Project Summary

Study and design of a set of comprehensive approaches and strategies in support of diffusion and wider adoption of Additive Manufacturing (AM) in Naval domain. Team established a long-term collaboration with multiple institutions that provide AM resources in Naval domain (Fabrication Laboratories, Innovation Labs, Maker Spaces), and collected data and insights about their operations. Project work also included data collection from potential adopters – their attitudes, skills, ownership of digital technologies in general, current and projected needs for AM, as well as exposure to and use of media. The effort proposed strategies and elements of adoption model specially designed to support accelerated adoption of AM, and provided advices about phased approach suitable for wider, self-sustainable adoption of AM in Naval domain. The work on this research effort has been used to further refine our model of Diffusion of Innovation in Military Domain.



Photogrammetry method of making 3D model of environment



Test of 3D scanning using scanning device, and 3D printing

Test of 3D scanning and photogrammetry

## Field Visits to Naval Fabrication Labs and Maker Spaces

SW Regional Maintenance Center, San Diego, CA	USMC SYSCOM, Quantico, VA	Marine Corps Air Station (MCAS), Cherry Point, NC	X-FAB, Camp Lejeune, NC
FabLab, MCAGCC, Twentynine Palms, CA	Mid Atlantic Regional Maintenance Center (MARMC), Norfolk, VA	RoboDojo, Naval Postgraduate School, Monterey, CA	NAVFAC, Port Hueneme, CA

## Conferences & Events

- (1) Naval Additive Manufacturing Technical Interchange – NAMTI, 2017, (2) Discover NPS Day
- ACM Web3D 2017, IEEE VR 2017

## Student Master Thesis, NPS

LCDR Michael Grimshaw: “Operational Cyber Security Risks and their Effect on Adoption of Additive Manufacturing in the Naval Domain”, Dec 2017.

