Welcome to the TaNCAD Wiki!

The Tactical Networked Communication Architecture Design (TaNCAD) lab at NPS focuses on developing advanced network architecture, protocols, and test/analysis tools for challenged communication environments, particularly those found in the tactical domain. TaNCAD is based at the Naval Postgraduate School in Monterey, CA.

Research Projects

- Golocation-Aware DTN Routing
- DTN Technical Readiness
- USMC NOTM DTN Integration
- DTN-cum-IP Integration

News

IMC Accepts

Rohrer, Justin (CIV) posted on Jul 31, 2018


Lab Meetings

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<th>Location: GE-B10</th>
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<td>• 2018 – 06 December: Status updates</td>
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<td>• 2018 – 29 November: Status updates</td>
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<td>• 2018 – 15 November: Status updates</td>
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<td>• 2018 – 08 November: Thesis (Strelkoff) and status updates. Relevant sections &gt;&gt;</td>
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Members

Faculty

- Dr. Justin P. Rohrer – GE-339
- Dr. Robert Beverly – GE-110
- Dr. Geoffrey G. Xie – GE-125

Staff

- Mr. Michael Monahan – IN-104
- Mr. Carl Prince – GE-120
- Mr. Riqui Schwamm – GE-237

Students

Current

- LTJG Samuel Strelkoff (Fall 2019)
- Mr Michael Monahan (Summer 2019) – DTN Implementation measurement and instrumentation
- LT Carlos Hargett (Spring 2019)
- Maj Logan, Brent (Maj) (Spring 2019) – SDN Automation of Distributed Firewalls

Graduated

- LT Jason Brown (Fall 2018) – Machine learning-based DTN routing
- LTJG Garret Walton (Fall 2018) – Rule-based training for reinforcement learning
- LT Kyle Hunter (Fall 2018) – IPv6 tarpit stickiness and scalability improvement
- LT Ryan R. Ferrao (Spring 2018) (Outstanding thesis, Surface Navy award) – Masked underwater accoustic communication
Abstract

Research Domain

Current Nanosatellite Communication Standards

Robustness to Error in Transmission

Possible Solutions for Error Propagation

Goals for NERP Functionality

Overview of NERP Behavior

Packet Header Structure

Packet Design

Reliability as a Data-loss Mitigation Method

NERDP System Evaluation

Integrity and Availability Vulnerability Assessment

2018 – 01 November: ITC paper presentation (Brown) and status updates

2018 – 25 October: IMC paper presentation (Beverly) and status updates

2018 – 18 October: Matplotlib demo and status updates

2018 – 04 October: Status updates

2018 – 11 September: ns3 demo (Brown) and status updates

2018 – 04 September: mininet demo (Hunter) and status updates

2018 – 28 August: Status updates

2018 – 21 August: Screen demo and status updates

2018 – 14 August: Git demo and status updates

2018 – 31 July: LaTeX demo and status updates

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