Color Codes	
	SEED Projects
	DoD Funded SEED
	Awaiting DoD Funding
	Awaiting Funding
	10K Seed Funding Awarded
	Projects for Initial Funding
	Projects Awaiting Funding Based on Fundraising Success
	Unfunded/Cancelled/Completed Projects

INDE	SCHOOL OR DEPT	PI/TEAM	PI Title	2016 /2017 SEED PROJECT MASTER LIST COMPLETE UPDATED 7-19-17	2016 RSCH QTR	Funding Committee Steward	Presentation Dates	Year 1 Funding	Total Project Funding	Current Status	Funding Priorities/Status/ Requirements
1	GSBPP	**Senior Lecturer Douglas Brinkley**, dbrinkle@nps.edu; Dean Bill Gates, BGates@nps.edu; Ken Doerr, khdoerr@np.edu	TT	**BUSINESS ANALYTICS and MOOCs:** Proposals combines two key issues in DoN and the DoD--business analytics (movement toward data-driven management decisions) and MOOCs as a platform to extend education across the defense workforce. NPS possesses the faculty talents to develop courses on defense business analytics that could be delievered throughout DoD via MOOCs, providing NPS with an entirely new opportunity to educate the defense workforce.	SUMMER	**Hargrove, K**	**NOVEMBER Funding**	**$50**	**$1,000**	**?**	
2	GSBPP	**Dean Bill Gates**, BGates@nps.edu; CAPT Mike Smith RAN, mksmith@nps.edu		**RETENTION ANALYSIS MODEL:** DoD and DoN are currently introducing wide-ranging initiatives to support recruitment, development and retention of active duty military (AKA Talent Management). This is a critical initiative to retain the best active duty personnal and insure readiness, but Navy N1 concerned 80s Dynamic Retention Model outdated. Project will develop alternative retention model to provide critical capabilities required to address problems in talent management.	SPRING	**Hargrove, K**	**MAY Funding SEPTEMBER Board**	**$385**	**$1,155**	**USMC/USN FUNDED. ARTICLE DUE!**	
3	GSBPP/	**Associate Professor Marigee Bacolod**, mbacolod@nps.edu; Associate Professor Latika Hartmann, lhartman@nps.edu	TT	**HOW DO WOMEN LEADERS IMPACT COMMAND PERFORMANCE?** Correlate presence of military women leaders in Navy and AF w impact on job outcomes (e.g. productivity, satisfaction, turnover). Goal: understand how women perform in leadership positions	SUMMER	**Rogers**	**AUGUST Funding DECEMBER Board**	**$175**	**$575**	**IN FUNDRAISING PHASE ARTICLE DUE!**	4
4	GSBPP/	**Professor Aruna Apte** auapte@nps.edu, 656-7583	TT	**READINESS METRICS FOR HADR MISSIONS**: Formulate specific metrics to measure the preparedness or military readiness of organization to respond to HADR. Metrics and performance measures impact budget and help measure cost as well as effectiveness of response. HADR missions embedded in other conflict scenarios, increasing.	SUMMER	**Rogers**	**NOVEMBER Funding DECEMBER Board**	**$150**	**$425**	**IN FUNDRAISING PHASE ARTICLE DUE!**	2
5	GSBPP/	**Research Associate Professor Mie Augier**, meaugier@nps.edu, 831-402-0883; Associate Professor Nick Dew, ndew@nps.edu; Jerry Guo, jmguo@nps.edu	TT	**DEVELOP TEACHING CASE: LESSONS FOR ORGANIZATION and STRATEGIC MANAGEMENT from USMC**: Marines above all services credited with organizational adaptability, integration of ridgidty and innovation, and extreme team/group loyalty. Case to explore particular qualities of USMC for lesson relevant to DoD.	SUMMER	**Hargrove, K**	**NOVEMBER Funding**	**$50**	**$100**	**IN FUNDRAISING PHASE ARTICLE DUE!**	
6	GSBPP/	**Raymond Jones**, rdjone1@nps.edu; Charles Pickar Senior Lecturer	TT	**DEVELOPMENT of DOD ACQUISITION CASE STUDY SERIES**: Series will examine significant past Acquisition Programs from inception to termination. Focus will be on leadership and management performance within Defense Acquisition Decision Making System, highlighting lessons learned. Initial study JTRS ($17B "failure"), follow on to include KC-46 USAF Tanker	SPRING	**Hargrove, K**	**AUGUST Funding SEPTEMBER Board**	**$117**	**$585**	**IN FUNDRAISING PHASE ARTICLE DUE!**	
7	GSEAS/Ocean.	**Professor Peter Chu**, 656-3688, pcchu@nps.edu	TT	**EFFECTS of SALINITY and CHLOROPHYLL on UNDERWATER OPTICAL COMMUNICATION and DETECTION**: Analyze Naval Oceanographic Office optical data set with Electro-Optic Detection and Simulation Model to investigate salinity effect on underwater optical communication and detection	SUMMER	**Baskett**	**AUGUST Funding SEPTEMBER Board**	**$135**	**$405**	**DOD FUNDED. ARTICLE DUE!**	
8	GSEAS/Physics	**Professor Bruce Denardo**, 656-2952, denardo@nps.edu	TT	**TRAVELING SHOW OF SCIENCE DEMONSTRATIONS**: Develop educational outreach program for elementary, middle, high school students in Monterey County. Build on success with NPS Oceanography "Science of Sound" acoustics demo for high school students. Workshops, live demos, videos, handouts, feedback, program assessment. Demo Van for roadshows.	SPRING	**Burhenne**	**MAY Funding**	**$180**	**$540**	**UNFUNDED Final Project Proposal is in-hand**	
9	GSEAS/SE	**Associate Professor Andy Hernandez**, ahernand@nps.edu	TT	**EFFECTS BASED FISCAL PLANNING--AN INNOVATIVE DECISION SUPPORT SYSTEM for NATIONAL DEFENSE LEADERS**: As fiscal conditions continue to reduce military budgets, service leaders must be able to show senior DoD and Congressional leaders how the impacts of fiscal decisions affect operations. Proposal is to develop Effects Based Fiscal Planning methodology as an engineered decision support system to help leaders visualize and fully understand the impact of resourcing decisions on national security.	SPRING	**Elster**	**NOVEMBER Funding**	**$825**	**$1,575**	**SEEKING DOD FUNDING ARTICLE DUE! Waiting on final project plan**	

10	GSEAS/Syst Eng	**Associate Professor Kristin Giammarco**, kmgiamma@nps.edu, 443-602-9965	TT	**NATIONAL CATALOG of SYSTEM PATTERNS**: Develop and host NPS online national system pattern catalog "trading post" to encourage discovery and documentation of "good" and "anti-" systems analysis patterns and trade among a national community. NPS would lead, review, vet and validate patterns for trade. Improve ROI on gov/corp investment	SUMMER	**Elster**	**NOVEMBER Funding**	**$250**	**$850**	**UNFUNDED**	
11	GSOIS/CS	**Capt Micah Akin**, mpakin1@nps.edu Bernardo Reynoso bcreynos@nps.edu	TT	**OPERATING IN INFRASTRUCTURE-LESS ENVIRONMENTS**: Conduct research on how mobile devices in austere conditions like counterinsurgency operations can self-organize into peer to peer networks that transmit signals among themselves without requiring external wireless or cellular infrastructure. Joint research with CORE Lab	SPRING	**Elster**	**NOVEMBER Funding**	**$150**	**$450**	**IN FUNDRAISING PHASE ARTICLE DUE!**	
12	GSOIS/CS	**Professor Neil Rowe**, ncrowe@nps.edu, 656-2462	TT	**LEARNING CYBERATTACK PATTERNS WITH ACTIVE HONEYPOT**: Honeypots used in cyber-defense are primarily passive. They are designed to receive and log attacks, and give early warning. PI experimenting with active honeypot with Internet connection outside NPS firewall. Enables setup of fake Web server, allows experimentation with different kinds of responses to HTTP requests. Keep attackers occupied with fake infrastructure, false error messages to foil attacks.	SUMMER	**Rice**	**MAY Funding SEPTEMBER Board**	**$100**	**$260**	**IN FUNDRAISING PHASE ARTICLE DUE… Waiting on final project plan**	
13	GSOIS/DA	**Associate Professor Sean Everton**, sfeverto@nps.edu	TT	**DARK NETWORK ARCHIVE (DNA)**: Expand CORE Lab's DNA archive to allow researchers and analysts the ability to access and analyze social network, geospatial and temporal data on dark networks. Objectives are to provide database to stork DN data, offer smart user interface, provide "quick stats", allow user to export data into variey of formats for further analysis	SUMMER	**Vashon**	**AUGUST Funding SEPTEMBER Board**	**$200**	**$300**	**IN FUNDRAISING PHASE Final Project Proposal is in-hand ARTICLE DUE!**	1
14	GSOIS/OR	**Associate Professor Samuel Buttrey**, buttrey@nps.edu	TT	**ESTABLISHING A CENTER OF EXCELLENCE IN DATA ANALYTICS**: Dramatic and increasing growth of data has outstripped most defense analysts analytical and computational abilities. The Center will improve and expand the application of data science and data analytics by conducting basic and applied research aimed at improving defense decision making and graduate education throughout the Navy and DoD with the goal of increasing combat effectiveness.	SUMMER	**Elster**	**NOVEMBER Funding**			**WITHDRAWN**	
15	GSBPP/	**Senior Lecturer Charles Pickar** ckpickar@nps.edu/Raymond Jones rdjone1@nps.edu/John Dillard jtdillar@nps.edu	Senior Lecturer	**DEFENSE ACQUISITON SIMULATION**: Establish a multi-service graduate educational program that is based on experimental learning. This research and education will use simulation to allow learners to make mistakes, and those mistakes can be highlighted and discussed within different scenarios in an effort to allow the students to refine their insight into defense acquistion and complex weapon system development.	SPRING	**Burhenne**	**Early Spring**	**$300**	**$62**	**IN FUNDRAISING PHASE ARTICLE DUE!**	3
16	GSEAS/ECE & OR	Dean Clyde Scandrett clscandr@nps.edu/ **CDR Zac Staples** zhstaple@nps.edu/LCDR Connor McLemore csmclemo1@nps.edu	MILFAC	**CYBER and INFORMATION SCIENCES TECHNOLOGY INCUBATOR**: Turn code behind published research from operational and informational sciences and cyber security into working prototypes ready for technology transition into Navy programs. Close gap between research and proof of concept; establish catalog of prototype cyber and decision support programs.	SPRING	**Elster Hargrove, R**	**2017 MAY Funding**			**DELAYED TO SUMMER 2017**	?
17	GSOIS/MOVES	**Research Professor Steven Hall**, sbhall@nps.edu, 656-1073	Res Prof	**PREDICTING SOCIAL SYSTEM RESILIENCY**: Develop architecture to measure *social resiliency* as a factor in success of disaster recovery, humanitarian assistance and reconstruction operations. Social resiliency is the capacity of the Social Identity Group (SIG) to attain and maintain social stability in the context of uncertain future challenges and operations.	WINTER	**Burhenne**	**NOVEMBER Funding**	**$200**	**$1,350**	**FUNDING COMMITTEE DISCUSSIONS**	
18	ENERGY ACADEMIC GROUP	**Research Professor Jonathan Phillips**, jphillip@nps.edu, 656-7916; Dr **Daniel Nussbaum** dnussbaum1@nps.edu/831-324-3228	IPA	**ENERGY SECURITY STARTS WITH ENERGY BEHAVIOR CHANGE:** Energy Security is a vital element in National Security; cost of energy requirements of new, more lethal technologies are increasing radically as are the costs of their operation across DoD and DoN worldwide. Premise: Every service member needs to understand how their energy usage behavior affects overall Energy Security. Proposal: Professional 30-45 minute education video w case studies, guided discussions for leaders afloat and ashore.	SPRING	**Rogers**	**AUGUST Funding**	**$150**	**$150**	**IN FUNDRAISING PHASE ARTICLE DUE!**	5
19	GSOIS/CS	Prof George Dinolt **Peter Ateshian**, prateshi@nps.edu	FA-R	**LEVERAGING ChipSat, a PROVEN FEMTO-SATELLITE, for SEA LAUNCH AND CDMA COMMUNICATIONS**: ChipSats 3.2x3.2 cm "femto-satellites" with thickness of a few mm, and only a few days orbital lifetime; new space technology, enable new missions reduce cost of access to space.	SPRING	**Elster**	**MAY Funding**			**Karen to do. Waiting on final project plan**	

20	GSOIS/CS	**Arjit Das** adas@nps.edu, Research Associate CS	FA-R	**INVESTIGATING the FEASIBILITY of a DATA ANALYZER WITH a GOAL to BUILD A PROTOTYPE**: Goal is to build a platform to analyze large amounts of Navy DoD historical data and make a prediction model that can be protoyped in NPS labs via a 7 component platform that integrates open source products.	SPRING	**Hargrove, K**	**AUGUST Funding SEPTEMBER Board**	**$350**	**$700**	**IN FUNDRAISING PHASE ARTICLE DUE with Karen! Waiting on final project plan**	
21	USPTC	**Alan Howard**, arhoward@nps.edu/	FA-R	**SUPPORT to NATO SCHOOL/NPS PARTNERSHIP PROGRAM**: As USPTC, NPS partners with NATO School, Oberammergau, Germany to provide NPS courses to US DoD and NATO/other allied personnel. Need for continued course development is ongoing. Proposal to develop one existing NPS course in specific format for international audience. Format would be hybrid residence and distributed learning over 10 weeks (1wk res/8DL/1wk res). Developed course offered to students through NPS/NATO School Partnership Program	SUMMER	**Burhenne**				**DONE! PROJECT CANCELED SEED FUNDS RETURNED**	
				2016 Funding Totals				**$3,767**	**$10,482**		
				2016 DoD/DoN/etc Funding Totals				**$570**	**$2,560**		
				2016 Foundation Funding Totals				**$3,017**	**$6,797**		

INDEX	SCHOOL/DEPT	PI/TEAM	PI Title	2017 SEED Projects for Execution!	2017 RSCH QTR	Funding Committee Steward	Presentation Dates 2017	Year 1 Funding	Total Project Funding	Comments	
22	GSOIS/IS	Associate Professor Ray Buettner rrbuettn@nps.edu	TT	**Combined Range & Robotics Control Center (CRRCC); Fleet Advanced Robotics Research (FARR) Facility; Field Laboratory Control Tower (FLCT)**		Bob Jaunich bjaunich@caleracapital.com	2017 NOVEMBER Funding			APPROVED 2017 SEED	
23	GSEAS/OC	Research Associate Professor Leonid Ivanov lmivanov@nps.edu	NTT	**On the non-acoustic detection of the submarine wake**		Forest Baskett fbaskett@nea.com	2017 AUGUST Funding			APPROVED 2017 SEED SEED can help improve ultimate ONR proposal; tell CAPT Good and	
24	GSEAS/MR	Distinguished Professor Michael Montgomery, mtmontgo@nps.edu	TT	**Improvement of Typhoon Formation Forecasts in the Western Pacific in the 3-5 Day Time Window Using New Insights from Lagrangian Fluid Dynamics** Utilize the new Amazon computing platform and establish our operational, automated method to provide daily hurricane/typhoon formation forecasts for all basins around the globe during this imminent 2017 hurricane season.		Roseann Burhenne rburhenne@gmail.com	2017 MAY Funding	$180	$180	APPROVED 2017 SEED Specific goal to reduce prediction time	
25	GSOIS/IS and GSEAS/PH	Faculty Associate Research Carl Oros, cloros@nps.edu; **Professor Gamani Karunasiri**, karunasiri@nps.edu; **Dr. Fabio Alves**, fdalves@nps.edu	NTT and TT	**Sound Induced Biological Photon Emission** Explore the potential for biological photon (biophoton) emission in response to sound stimuli.		Forest Baskett fbaskett@nea.com	2017 MARCH Funding	$100	$200	IN FUNDRAISING PHASE ARTICLE DUE!	7
26	GSOIS/IS	Assistant Professor T. Camber Warren tcwarren@nps.edu; **Lecturer Albert (Buddy) Barreto**, abarreto@nps.edu	TT	**Open-Source Analytics for the Spatial Assessment of Collective Radicalization** Utilize new computational architectures to analyze open-source data streams, at global scales, for the purpose of generating enhanced predictions of the likely location and timing of future spirals of social and political radicalization. The fundamental goal is to give commanders new tools for dynamic situational awareness in the human domain.		Craig Vashon craig.vachon@gmail.com	2017 MARCH Funding	$195	$669	IN FUNDRAISING PHASE ARTICLE DUE!	6
27	GSOIS/IS	Professor Geoffrey Xie xie@nps.edu	TT	**Software Defined Networks**		Rick Hargrove Rick@CypressBluff.com	2017 AUGUST Funding			APPROVED 2017 SEED Military has need for more real-time networks than industry	
28	GSEAS/MR	Professor Qing Wang qwang@nps.edu; **Professor Wendell Nuss**, nuss@nps.edu	TT	**Testbed for Shipboard Electromagnetic Wave Propagation and Coastal Environmental Prediction Capabilities E**stablish a new 'virtual ship' lab for the purpose of testing the integration of new measurement and modeling capabilities designed for fleet use and evaluate their complete impact prior to implementation.		Maura Sullivan msullivan@stanfordalumni.org	2017 AUGUST Funding			APPROVED 2017 SEED DOR verified intention to develop large-scale testbed across Monterey	
29	Research/ Cebrowski Inst	**Faculty Associate Research Warren Yu**, wyu@nps.edu	NTT	**A Primer on Living a Private, Secure, and Convenient Digital Life**			WITHDRAWN			WITHDRAWN	
30	GSOIS/IS	Research Associate Professor Ying Zhao yzhao@nps.edu	NTT	**Developing a Platform of Recursive Data Fusion, Unsupervised Machine Learning and Visualization Leveraging Lexical Link Analysis, System Self-awareness (SSA), and Collaborative Learning Agents (CLA);** The objective of the project is to develop a testbed/"sandbox" to demonstrate the logical, rapid and incrremental development of the new technologies of Big Data, Deep Analytics, and ML/AI into military applications.		Karen Hargrove Karen@CypressBluff.com	2017 MAY Funding	$200	$700	APPROVED 2017 SEED Recommend working with Ajit Das on this to add LLA techniques on top; Dick Elster will coordinate	
31	GSOIS/OR	Professor Susan M. Sanchez, smsanche@nps.edu	TT	**NPS Foundation Distinguished Sabbatical Visitor Program**			ON HOLD			ON HOLD This should follow in the footprints of the Fellows Project, so we would like	
32	GSIOS/MOVES	Faculty Associate Curtis Blais clblais@nps.edu Dr. Imre Balogh ilbalogh@nps.edu	??	**Enabling Military Models and Simulations to Distinguish Human System Performance and Unmanned System Performance** This will develop a framework and prototype implementation to enable representation of human systems and unmanned systems in combat simulations to improve training and analysis.		Dan Oliver danieltoliver@comcast.net	2017 MAY Funding	$250	$750	APPROVED 2017 SEED	
33	GSIOS/DA	Associate Professor Douglas Borer daborer@nps.edu	??	**Establishing a Special Operations Reserch Capability in NATO** This will study the feasibility of establishing an internal Special Operations Research Capability in NATO. Issues to be considered are placement within the NATO structure, organizational setup, work model and product formats.			WITHDRAWN			WITHDRAWN	

34	??? /IS	Associate Professor Don Brutzman brutzman@nps.edu	??	**Persistent SV-3 Wave Glider USV Operations for NPS C3 Research and Experimentation** C3 experimental limitations will be addressed through procurement of a new Wave Glider SV3 system from Liquid Robotics. This system will be available across campus to students and researchers involved in C3 concept evaluation using at-sea autonomous systems.		JD Morrison jdmorris1@nps.edu	2017 MAY Funding	$1,000	$2,000	APPROVED 2017 SEED	
35	GSOIS/IS	Faculty Associate Reseacher Gerald Scott grscott@nps.edu Ray Buettner rrbuettn@nps.edu	TT	**Technology - Enabled Prosthetic Environments (TEPE)** Develop mental health prosthetics using integrated, AI-controlled, wearable, mobile, and embedded devices to create semi-artificial environments.		Sean Washington seandwashington@gmail.com	2017 NOVEMBER Funding			APPROVED 2017 SEED	
36	GSBPP	Professor Geraldo Ferrer gferrer@nps.edu		**Improving Safety during natural Disasters** This research will provide data-based foundations for guidelines regarding preparation and actions that can reduce risk during disasters. Results should be useful for policymakers, public health departments, FEMA, and other humanitarian and disaster response organizations.						POSTPONED FOR NEXT CALL.	
37	GSBPP	Dean Bill Gates BGates@nps.edu		**Defense Acquisition and Defense Management Case Study Development** Seeks to understand the organizational and strategic aspects of the USMC (and their key transformations) may also help us understand how to make other organizations more innovative / adaptive		Erica Rogers ERogers@SILKROADMED.COM	2017 NOVEMBER Funding			APPROVED 2017 SEED	
38		Professor Dragoslav Grbovic dgrbovic@nps.edu		**MEMS Micro-heaters for On-the-Fly Annealing of IC for Space Applications and Identification of Friend or Foe D**esign and microfabricate dual-use, micro-electromechancal systems (MEMS) microheaters. The developed micro-heaters would be used for on the fly repair of integrated circuit (IC) chips exposed to space environment in space applications or as sources of infrared (IR) radiation with tunable spectrum in identification of friend or foe (IFF) applications.		Dick Elster relster@pacbell.net	2017 AUGUST Funding			APPROVED 2017 SEED	
39		Professor Cynthia Irvine irvine@nps.edu		**Virtual Network Farm P**ropose to develop a Virtual Network Farm that will issue students virtual networks (dozens of hosts, switches, etc.) for their exclusive use while enrolled.						WAITING TO HEAR BACK…	
40		Deputy Director, Scott Jasper sejasper@nps.edu		**Active Cyber Defense Seeks to** advance the capability-based reference architecture in regard to applicability of commercial components and products that defeat the malicious actor along the Cyber Kill Chain inside the network. The Big Idea will examine and inform how the architecture guides achievement of the three foundational capabilities of automation, information sharing and interoperability through commercial adoption of standardized machine-to-machine interfaces.		David Rice davidcrice@yahoo.com	2017 MARCH Funding	$85	$267	APPROVED 2017 SEED	
41		Professor James Newman jhnewman@nps.edu Research Associate Alison Kerr adkerr@nps.edu		**NPS STEM outreach Activities**		Roseann Burhenne rburhenne@gmail.com	2017 NOVEMBER Funding			APPROVED 2017 SEED	
42		Professor Doowan Lee dlee@nps.edu		**Virtual Reality Seeks to** develop an academic framework for the advanced research of virtual reality technology. This will include a multi-disciplinary approach from NPS faculty with experts in information and computer science, strategic gaming, and mathematical modeling and virtual environment theory and application.		Karen Hargrove Karen@CypressBluff.com	2017 MARCH Funding	$200	$1,400	APPROVED 2017 SEED	
43		Vino Roy VrRoy@nps.edu		**Ideologies & Changing Identities in the 21st Century;** Study ideological shifts across the globe in the past few decades and determine and what impact are these shifting identities and ideologies having on current conflicts		Erica Rogers ERogers@SILKROADMED.COM	2017 MARCH Funding	$140	$300	APPROVED 2017 SEED	
44		Research Associate Professor Amela Sadagic asadagic@nps.edu		**Re-evaluating the Path 'From Research Projects to Operational Products'** Will outline a comprehensive set of approaches, activities, supportive environments and infrastructure, alliances, networking activities among the stakeholders, applicable to a selected set of research domains practiced at NPS with a military domain as the main user, and generate more detailed plan of action as a proposal for a school-wide activity in this domain. This work will also include meetings and discussions with the colleagues at NPS, and several focus group discussions with students from different departments.						POSTPONED FOR NEXT CALL.	
				2017 Funding Totals				$2,350	$6,466		
				2017 DoD/DoN/etc Funding Totals				?	?		
				2017 Foundation Funding Totals				?	?		