CRUSER Call for Proposals FY18

PROPOSALS DUE DATE: 15 Aug 2017
Selection Date: 1 Sep 2017
Funding Start Date: As early as 1 Oct 17
Funding Expiration Date: 30 Sept 2018
Funding Levels: up to $150,000
Proposal Type: Single-Year Proposals

Research Goal: The Consortium for Robotics and Unmanned Systems Education and Research (CRUSER) at the Naval Postgraduate School provides a collaborative environment for the advancement of educational and research endeavors involving robotics and unmanned autonomous systems (AS) across the Navy and Marine Corps. CRUSER seeks to align efforts, both internal and external to NPS, by facilitating active means of collaboration, providing a portal for information exchange among researchers and educators with collaborative interests, and supporting innovation with operationally relevant research and experimentation.

Anticipated Funding Amount: Funding has not yet been received for FY18; however the purpose of this call for proposals is to prepare researchers on campus to begin work as soon as possible in the new fiscal year. We anticipate being able to fund ~20 projects averaging ~$100k -$150k each.

- CRUSER funding, outside of the individual proposal, is available for INCONUS travel support for full-time enrolled MS & PhD students only. Travel for Professors and Faculty Associate – Researchers will only be supported by the funded project. Students requiring travel funds will follow the standard CRUSER Student Travel request procedure to be approved for this travel support. Students who do not have prior approval to travel on CRUSER funding will be charged to the project.

Research Focus Areas: “Developing Autonomy to Strengthen Naval Power” --originated from the Warfare Innovation Continuum (WIC) Workshop held in Sep 2016. Proposals will be accepted in the following research related topic areas:

a) Littoral Mesh Networking and Remote Sensing: These concepts all employ autonomy to create a mesh network of communications and sensing nodes in a contested urban littoral environment.
b) **Innovative Undersea Warfare (USW):** These concepts leverage autonomy to clear and secure sea lanes and harbor approaches for landing and resupply in a contested urban littoral environment.

c) **Autonomous Unmanned Surface Vehicle (USV) Missions:** These concepts employ autonomy to leverage or disable all available assets in a contested urban littoral environment.

d) **A2AD Capabilities:** Other robotics and unmanned/autonomous concepts of interest that do not fit into the categories above yet leverage unmanned/autonomous systems to create asymmetric advantages in an A2AD environment.

e) Any research topics related to unmanned/autonomous systems will also be considered.

**Classification Level:** Unclassified (Preferred) but Classified work will be considered.

**Required Documents:** Supplemental information (to include templates) can be found on the CRUSER website by navigating to [http://my.nps.edu/web/cruser/call-for-proposals](http://my.nps.edu/web/cruser/call-for-proposals) and selecting “FY18 Call for Proposals” link. The required documents are listed below:

1. 5-7 page proposal. (Use CRUSER template & submit online. **Do not** submit via the Research Office).
2. Current Year Research Office Budget form ([https://my.nps.edu/web/research](https://my.nps.edu/web/research)). **List CRUSER as the Sponsor. If selected, Dr. Raymond R. Buettner will sign as Director and route via RSPO. No sub-JONs will be created.**
3. Quad Chart (use the CRUSER provided template).

**Submission Procedures:***

- All FY18 proposal packages will be submitted online at: [https://survey.nps.edu/136241/lang-en](https://survey.nps.edu/136241/lang-en)

**Review and Selection Board:** Proposals will be evaluated by a panel of reviewers co-chaired by the Dean of Research and the CRUSER Director.

**Proposal Evaluation Criteria:**

1) Student involvement
2) Interdisciplinary, interagency, and partnerships with other Naval labs
3) Partnerships with other sponsors’ funding
4) Research related to various unmanned systems’ categories:
   a. Technical
   b. Organization and Employment
   c. Social, Cultural, Political, Ethical and Legal
   d. Experimentation
5) New research area (seed money to attract other contributors)
6) Research topics related to ANY robotic and unmanned systems area may be proposed, though proposals related to any CRUSER innovation thread are preferred. (See website and above focus areas)
7) Alignment with SECNAV’s DON Unmanned Systems Goals (see CRUSER Charter memo) and the CNO’s Sailing Directions (www.navy.mil/cno/cno_sailing_direction_final-lowres.pdf)
8) Researchers are members of the CRUSER Community of Interest
9) Proposals should aim to make an immediate impact on the community ($75k - $150k level of effort appropriate for CRUSER).

Faculty members who receive CRUSER funds are expected to be members of CRUSER AND fully active in supporting CRUSER’s goals to include (but not limited to):

- Monthly meeting attendance
- A Presentation at a monthly meeting and at the annual CRUSER TechCon
- A CRUSER News article
- Participation in CRUSER sponsored events
- Contributions to the CRUSER Annual Report
- Providing updated labor plans and budget projections as requested