**CIGLR Fellowship in Great Lakes Geodetics  
*Special Program*  
Request for Proposals**

Description: The Cooperative Institute for Great Lakes Research (CIGLR) is soliciting proposals from Regional Consortium University Partners for one (1) **Graduate Student or Postdoctoral Fellowship** co-sponsoredbythe NOAA Center for Operational Oceanographic Products and Services (CO-OPS) and NOAA National Geodetic Survey (NGS), which are Program Offices of the NOAA National Ocean Service (NOS).The fellow will work with university faculty and NOAA NOS co-advisors to increase the reliability, integrity, and sustainability of water level observing stations in the Great Lakes as a model for improvements nationwide.

The broad goals of this fellowship are to 1) expand research training opportunities in the area of coastal observations and modeling systems and 2) enhance collaborations between CIGLR’s University Partners and NOAA in ways that complement NOAA’s mission to improve research effectiveness and impact in the Great Lakes. We also seek to use these fellowships to increase diversity in STEM disciplines (science, technology, engineering and math), and thus, strongly encourage proposals that support individuals from groups which have been traditionally underrepresented in government and academic workforces.

In this special fellowship program, CIGLR is seeking proposals for projects that advance Goal 2.2 of the draft CO-OPS FY 19-23 Strategic Plan, to implement Global Navigation Satellite System (GNSS) technology as a primary means of vertical control to sustain global leadership in water level observations. Successful project proposals will leverage existing NGS Continuously Operating Reference Station (CORS) data at or near CO-OPS National Water Level Observation Network (NWLON) stations in the Great Lakes. Project proposals should support NOS priorities related to the use of continuous GNSS data to analyze sensor stability in near real-time, improve connections between station datum and national or international reference frames, and to resolve components of Great Lakes water level change. By utilizing existing sites in the Great Lakes where GNSS is already heavily incorporated into NWLON instrumentation, this effort will identify different GNSS processing methodologies that can inform GNSS instrumentation decisions at NWLON stations nationwide, and products that can be used to monitor the three NOS priorities mentioned above. At the end of the project, the fellow’s final report is expected to describe continuous GNSS processing strategies used within the project, and to make recommendations for instrumentation or site surveys that will best advance the CO-OPS strategic vision for GNSS-based vertical control. Under this vision, expanded use of GNSS affords CO-OPS the opportunity to actively monitor the stability of observing systems and strengthen geodetic connections to station datums. The incorporation of GNSS-based vertical control at water level stations will allow CO-OPS to maximize the quantity, quality and accuracy of long-term water level records, real-time water level data and associated products like sea level trends.

Funding: $85,000 is available for a Postdoctoral or Graduate Student Fellowship.

Eligibility. Fellowships may be used to support any graduate student (Masters or PhD) or postdoctoral scholar working with a tenure-track faculty member from a CIGLR University Partner institution. Proposals may be submitted by either the graduate student, postdoc, or faculty member.

Requirements: The fellowships require co-mentoring by both a university lead mentor and an NGS co-mentor with NOAA’s National Ocean Service (NOS). If assistance is needed in securing an appropriate NGS co-mentor, please contact Alaska Geodetic Advisor Dr. Nicole Kinsman at [nicole.kinsman@noaa.gov](mailto:nicole.kinsman@noaa.gov) or your local NGS Regional Advisor (<https://www.ngs.noaa.gov/ADVISORS/>) for professional introductions. Fellowship projects must address the specific goals related to incorporation of GNSS at Great Lakes NWLONs, as described above.

Fellowship recipients are required to attend CIGLR’s Annual Partner Meeting (September) to give a poster on their work, to submit a final report to CIGLR and NOS, and provide a webinar-based presentation to NOS staff upon completion of the fellowship.

Application Process: Proposals should include the following sections:

1. Cover sheet (template attached)
2. Main body (4 pages max)
   1. Introduction: Provide background information on the research topic, ending with the research question(s) to be addressed.
   2. Hypothesis(es): State testable hypotheses and the corresponding predictions for those hypothesis. Explain the corresponding rationale for the hypotheses and predictions. Proposals lacking testable hypotheses and clear predictions will not be funded.
   3. Methods: Describe the study approach(es) and general methodologies to be used in sufficient detail that they can be evaluated by a general expert.
   4. Significance: The main body of the proposal should end with a section describing the anticipated results, their relevance to their relevance to the goals described in the solicitation, and their importance to society.
3. Co-mentoring plan (0.5 to 1 page)

Identify the university lead mentor and NGS co-mentor. Describe plans to ensure active collaboration between the fellow, faculty mentor, and NGS co-mentor. Applicants are encouraged to have their NGS co-mentor contact the CO-OPS GNSS Working Group to discuss proposed research before applying. Postdoctoral Fellowship proposals should include plans to provide the postdoc with professional training that includes career counseling, experience writing proposals, mentoring on publications and presentations, experience in reviewing papers and proposals, development of teaching and mentoring skills, and experience in broader impacts like public outreach and communication.

1. Budget (1 page)

Submissions should provide a budget and budget justification. Budgets should total $85,000 for 12 or more months, and can include salary, fringe benefits, tuition, supplies, and travel. Any deviation from these numbers should be explained. Universities must abide by their MOUs with CIGLR that agree to a reduced IDC of 10% to take advantage of this fellowship.

5. CV or Resume   
Please attach the fellowship candidate’s resume or curriculum vitae.

**Proposals should be submitted as a single Adobe pdf file by 5 pm ET on December 1, 2018. Please send your proposals and inquiries to Mary Ogdahl (**[**ogdahlm@umich.edu**](mailto:ogdahlm@umich.edu)**).**

Review process. Proposals will be reviewed and ranked by members of the CIGLR Council of Fellows (not collaborating on submitted proposals) and the CO-OPS GNSS Working Group for final award selection. Proposals will be judged on: 1) the quality of the science, 2) potential for the research to make a societal impact, 3) consistency with the specific goals stated for Great Lakes geodetics, 4) level of commitment to the dual mentorship and training of the fellow, and 5) potential to foster interaction between NOAA and the CIGLR Regional Consortium.

CIGLR will announce the **final decisions by January 31, 2019**. Funding for the fellowships will be sub-awarded by the University of Michigan to the host university of the selected faculty member.

**CIGLR Fellowship in Great Lakes Geodetics**

**University Lead Mentor:**

**Affiliation:**

**Email:**

**Fellowship Candidate:  
Affiliation:**

**Email:**

☐ Graduate student

☐ Postdoc

**Optional Biographic Information**

**Candidate gender:**

☐ Female

☐ Male

☐ Transgender or Transitioning

☐ Other. If none of these offers a satisfactory option, please enter you preferred description here:

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☐ Prefer not to answer

**Candidate Race/Ethnicity (select the one that best applies):**

☐ American Indian or Alaska Native  
☐ Arab or Middle Eastern  
☐ Asian  
☐ Black or African American (Not Hispanic)  
☐ Hispanic or Latino/a  
☐ Native Hawaiian or Other Pacific Islander  
☐ White or Caucasian (Not Hispanic)  
☐ Biracial (Please Specify Below)  
☐ Multiracial (Please Specify Below)  
☐ Other. If you do not see your race/ethnicity on the list, or you would like to be more specific, please enter your preferred racial/ethnic description here:

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☐ Prefer not to answer

**Candidate Socioeconomic Status (select all that apply):**

☐ First generation college student

☐ Federal Pell Grant eligible

☐ Veteran

☐ Raised in a single parent household

☐ Need-based financial aid recipient or work study student

☐ Prefer not to answer

1. **INTRODUCTION**
2. **HYPOTHESES**
3. **METHODS**
4. **SIGNIFICANCE**
5. **CO-MENTORING PLAN**
6. **BUDGET ($25,000) with JUSTIFICATION**

***Please attach candidate’s CV or resume***