

Name: PSICE/Penn State Ice and Climate Exploration Center

Director: Sridhar Anandakrishnan

Participants: RB Alley, D Pollard, T Sowers, M Gooseff, B Parizek, CW Holland (ARL), PG Burkett, S Bilen (EE). Research assoc: R Walker, A Muto

Rationale: We propose the continuation of the Penn State Ice and Climate Exploration Center (PSICE) as a component of EESI. Since our inception, we have become a recognized entity in the department and college, and in the wider world, with much of the credit going to EESI for fostering us.

In the original PSICE application and the follow-on, we proposed to create a community of “ice” researchers. We have done it. We have written proposals together. We have pooled monies and leveraged EESI support to attract research associates including Joe MacGregor, Ryan Walker, and Atsu Muto. We have developed an ongoing training program in valuable research experience on ice techniques. Using PSICE money, we purchased computers for our summer intern undergraduates so they could have a “modern” lab experience rather than overloading the department’s computer lab. In the past year, I have brought electrical engineers and engineers from industry into the mix - with travel and group meals paid for from PSICE - small things, but effective in showing we are serious about talking with them.

EESI support also helped us host the international West Antarctic Ice Sheet meeting as a showplace for Penn State’s glaciological efforts, and a major contribution to the ongoing global effort to predict sea-level changes. This meeting hosted over 80 scientists, including many from overseas, and many students. Support from Debra on the website, and many other contributions, made the meeting possible. John Miley’s support of the PSICE mailing list is also helpful.

As evidence of the community we have built, many of the students are putting “PSICE” in their email signature lines. When the Christchurch earthquake occurred, the psice mailing list lit up because we all have friends and colleagues down there. Again, these are small things, but they contribute to the growing national and international leadership role of Penn State in glaciological sciences.

Going forward: prospective graduate students are web-savvy and research our work and people before applying; alas, our web presence is abysmal. We asked for money last time to update the web site, but many other things intervened and we never made the changes. It had been OK, but is really showing its age now - we will fix it up this round.

Funding Opportunities: Continuing STC (Cresis) funding; continuing NSF/OPP (Polar Programs) & NASA funding; proposed new STC (collaborative with ARL); proposed new NSF/NASA funding.

Requested Budget: \$6K for web refurb. (4-6 weeks of professional support – not sure what that will cost).

Requests without a direct budgetary line: In addition, we request EESI backing for Ryan and Byron to use the high performance cluster as premier members. We get great support from the staff (in particular Deb Detwiler, Debbie Lambert, and Missy Stine): we request continued access to their expertise.

Management Structure: minimal. Anandakrishnan and Alley discuss needs and priorities.

Support letters:

Richard Alley:

Penn State is a center of world-class ice research, with global recognition. However, Penn State's expertise is widely spread, organizationally and geographically, from Civil Engineering to ARL, although especially centered in EESI and Geosciences. An EESI Center, with a name, acronym and web presence, gives us a focus for recruiting and operating. We have, for now, raised most of the money needed, but money without the EESI-approved Center name lacks cachet. (And, to be honest, it seems more appropriate to reward success in raising outside money than to punish such success.)

Dave Pollard:

Since the inception of the Penn State Ice and Climate Exploration Center as a component of EESI, PSICE has expanded into a true community of ice researchers. Much of the credit goes to EESI for fostering community-building activities. Our group is now nationally recognized as one of the best environments for students to embark on ice sheet and glaciological research, and as one of the most productive in cutting-edge research where modelers interact effectively with field and laboratory researchers.