



Center for Advanced Study initiative on Science and Technology in the Pacific Century

Summary

Science and Technology in the Pacific Century (STIP) is a three-year cross-disciplinary initiative of the University of Illinois's Center for Advanced Study and the Center for East Asian and Pacific Studies (EAPS) dedicated to examining the changing state of science and technology in the Asia-Pacific, its impact on the nations of the region, and its significance for the United States. Co-sponsored by over twenty university units, STIP activities include public lectures, symposia, workshops, hosting visiting scholars, supporting guest lecturers in undergraduate classes and a semester-long seminar for faculty and graduate students. STIP is also part of the IL/IN East Asia Initiative, a partnership between EAPS and the East Asian Studies Center at Indiana University.

Rationale

If the 21st century is to be the Pacific Century, as some predict, science and technology will play a key role in Asia's rise. Countries throughout the region are quickly becoming global players in a broad range of scientific fields. At the same time, developments in science and technology pose new challenges to regional governments, business, and society. Some in the United States in turn are worried or even alarmed, concerned that the U.S. is losing its preeminent position in global science and technology. Others believe that Asia's emergence as a scientific and technological force will open new markets and create new opportunities for collaboration.

The scale of these changes is indisputable. Asia's science and engineering workforce is approaching 200 million and continues to grow. China's spending on research and development is growing at 17% annually. Scientists in Asia publish and patent in the U.S. at an increasing rate, high-technology exports from Asia are surging and U.S. firms increasingly base research activities in Asia. Recognizing that no single discipline can provide an adequate understanding of these changes, *Science and Technology in the Pacific Century* (STIP) is a timely interdisciplinary initiative.

Focus

STIP seeks to explore three over-arching questions:

- What are the key developments in science and technology in the Asia/Pacific?
- What is driving these developments and what is their impact on the region?
- What is the impact of these developments on the U.S. position in the global technological arena and what are appropriate U.S. responses?

In order to provide focus, we will explore these questions in the context of five broad themes. These themes, chosen to reflect the strengths and interests of the University of Illinois, include the following:

- The shift from applied to basic research
- The transnational circulation of science and scientists
- The education of the global scientist and engineer
- Science and technology's impact on food, water, and the environment in Asia
- Technological entrepreneurship in Asia

Constituents

Reflecting the initiative's cross-disciplinary nature and the multi-faceted impact of the changes occurring in Asia, *STIP* will engage four primary on-campus audiences.

- Students and faculty who have an interest in Asia and want to explore the role of developments in science and technology in Asia. There are over 200 Asia-related doctoral dissertations currently in progress across campus.
- Students and faculty with an interest in the study of science, engineering, technology or entrepreneurship as social phenomena.
- Students and faculty for whom the development of science and technology in the Asia-Pacific and the U.S. response represent specific instances of more general phenomena.
- Students and faculty whose careers are related to technologies that have robust lives in the Asia-Pacific or are likely to be strongly affected by developments in the region. This group may include university administrators, as the University considers how to respond to new challenges and opportunities raised by the growth of science and technology in the Pacific.

Activities

STIP will sponsor a diverse set of activities.

- CAS 587 (Science and Technology in the Pacific Century). A seminar in Spring 2008 for faculty, graduate students and selected upper-level undergraduates.
- Public lectures to bring leading scholars, public intellectuals and policy makers to campus.
- Conferences of 1 to 2 days for an extended examination of a topic from multiple perspectives. Planning is underway for two Spring 2008 conferences: Technological Entrepreneurship in India and Intellectual Property's Changing Role in Asia.
- Small (under 15 people), highly-focused workshops for intense exploration of specialized topics.
- Sponsorship of visiting scholars.
- Sponsorship of guest speakers in undergraduate and graduate level classes.
- A website that will publicize *STIP*'s various activities as well as related events or courses sponsored by other campus units.

STIP will also endeavor to reach relevant external audiences including policy makers, business managers, and faculty at other institutions through briefings, publications, and direct engagement.

For further information, please contact CAS Resident Associate Glenn Hoetker, who will coordinate this initiative (ghoetker@uiuc.edu or 265-4081)