



International Press-in Association

Call for Research Proposals

Background Information

International Press-in Association (IPA) aims to sponsor both research and teaching dedicated to the science and verification of the Press-in Method such as;

- demonstration of the behaviour of pressed-in piles and the soil transition
- verification of the foundation piles developed with the advantages of the press-in principle
- verification of the existing calculation formula, applications, concept on the piles and the present methods of construction
- establishment of the new methods developed by the press-in principle, and realization of the sustainable urban construction

The IPA takes its name from the Press-in Method that is established by the Japanese company Giken Seisakusho Co., Ltd. over a period of 30 years. A “press-in machine”, which sits on top of fully installed piles, hydraulically jacks piles into ground with a static load silently, safely and accurately by radio controlled operation. As the reaction force is derived from anchored piles, the press-in machine is small and lightweight to allow self-moving over a row of the installed piles without crane support. Thus the Press-in Method fulfils the “Five Construction Principles”, which include environmental protection, safety, speed, economy and aesthetics, even under various site restrictions and adverse conditions such as limited access, overhead obstructions and geological difficulties. More information is available at www.giken.com.

Giken wishes to engage with universities around the world via the IPA, so as to promote independent research and to support education and training. Mr Akio Kitamura, President of Giken Seisakusho Co., Ltd. feels strongly that civil engineers should embrace the principles which have guided him in his developments:

- a scientific attention to the actual behaviour of systems and materials
- a commitment to improve the reliability and efficiency of construction operations
- a proper regard for the well-being of society and care of the environment
- an intention to offer new and creative solutions for urban living
- a proposition on the new construction materials and methods, with the concept that all the construction structure should be built considering the cost of the dismantle and removal after the life of the structure

In order to further these aims, an IPA Preparatory Committee has been organized comprising President Akio Kitamura, Professor Hajime Okamura (Kochi University of Technology) and Professor Malcolm Bolton (Cambridge University). Practical action to establish the IPA was launched at the IPA Preparatory Assembly where international academic experts in civil engineering joined together in Kochi, Japan on 9th September 2005.

Co-operative Research Proposals

Research topics

The IPA Preparatory Committee invites co-operative research proposals which aim to advance the art and science of press-in piling and related aspects of sustainable urban construction. Proposals are invited from university research workers and teachers, from individual engineers, and from design and consultancy companies, who wish to cooperate through the IPA. The committee is willing to consider a wide variety of proposals which may include:

- experimental research, possibly involving Giken's research and development facility in Kochi
- fundamental research into pile-soil interaction
- visits to sites of press-in piling operations
- access to existing pile pressing-in data
- seminars, workshops and conferences

The IPA intends to grant up to five IPA co-operative research grants in response to this call, each with a maximum value of US\$20,000. The grants will run for a 12 month period which is anticipated to begin during the second quarter of 2007. The principal investigator may apply for renewal of the grants subject to successful progress after the initial 12 month period.

Timetable

20 December, 2006	Proposals must be submitted to the secretary of the IPA. No proposals will be accepted after this date.
15 January, 2007	Successful applicants will be informed.
15-16 February, 2007	An IPA workshop will be held in Cambridge, UK. This workshop will include lectures on previous IPA-related research, brief presentations to launch the accepted IPA research projects, and discussion. It is a condition of the IPA co-operative research grants that the principal investigator attends this workshop.
April, 2007 - March, 2008	Initial 12 month period for research activity

Proposal format

Proposals should be sent to the secretary of the IPA by e-mail in Acrobat or MS Word format.

A cover sheet to the proposal should give details of the principal investigator:

- name, work address, telephone and fax number, web page, and e-mail address
- brief details of education, research and professional experience
- details of five publications (research papers, academy publications and other references) which exemplify the principal investigator's interests

The body of the proposal should not exceed 2 pages in length and should include:

- activity for an initial period of 12 months, with paragraphs devoted to aims, objectives, key tasks, the people to be involved, any collaborative activity with other IPA members, and any financial support that may be required from the IPA. Where the requested budget exceeds US\$20,000 there should be firm arrangements or proposals for parallel funding from research councils, government agencies, companies etc., with additional details.

The committee may seek further information from the principal investigator following receipt of the proposals. The committee seeks to make up to five cooperative research grants in 2007, and hopes that a number of these may develop into longer term collaborations.

Queries regarding the suitability of a particular research theme, and the availability of resources for collaborative activity at Giken's test and project sites should be addressed in the first instance to the secretary of the IPA.

6 November, 2006