

*International Network for Engineering Education and Research*  
***(iNEER)***  
*General Secretariat*

## **iNEER REPORT FOR 2003**

**General Secretariat**

iNEER/ICEE-ISC  
e-mail: [ineer@ineer.org](mailto:ineer@ineer.org)  
<http://www.ineer.org>

July 4, 2005

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## **A. Introduction**

iNEER continued to make progress in 2003 in all aspects of its activities and programs. Through its e-mails, and the annual ICEE conference and Special Volume, the Secretariat continued its efforts to expand membership in the iNEER Network. It also continued to promote networking, information dissemination and international cooperation. The information dissemination included new funding opportunities that are of interest to iNEER members.

In cooperation with the Universidade do Vale do Paraíba (UNIVAP) and other universities in Brazil, iNEER organized the first Ibero-American Summit on Engineering Education (IASSEE) in Sao Paolo, Brazil.

ICEE-2003 was held in Valencia, Spain, with the largest number of attendees ever for an ICEE conference.

The financial condition of iNEER remained healthy in 2003.

## **B. Recruiting new members of iNEER**

The iNEER Secretariat sent out a memorandum on April 28, 2003 which discussed the qualifications needed to be an iNEER member.

In the note, new and existing members of the iNEER Network were reminded that iNEER members share a common desire to share ideas and information, and leverage individual resources, thereby helping to arrive at effective new solutions for engineering education. Further, it was stated that iNEER welcomes as members educators who support the iNEER Mission and Objectives, and are from government, industry or academic institutions of all regions of the world, irrespective of their national origin or creed. Finally, it was emphasized that the business of iNEER, however, is limited to accomplishing the Ineer Mission and Objectives, as described under "Vision and Operating Procedure." We posted an invitation on this website to invite new members to contact us at [ineer@ineer.org](mailto:ineer@ineer.org). More details are given at: <http://www.ineer.org/AboutUs/ToBecomeAMemberofiNEER.htm>.

## **C. iNEER Information**

A memorandum dated April 18, 2003 (amended May 2, 2003) was sent to all iNEER members requesting suggestions regarding conference sites for 2007 and beyond. To view the text in full, please visit:

<http://www.ineer.org/AboutUs/MemotoiNEERCommunity5-2-03.htm>.

An invitation to new members of iNEER was sent out on April 23, 2003 welcoming them to the organization and updating them on upcoming ICEE conferences. The invitation is available at:

<http://www.ineer.org/AboutUs/INVITATIONTONEWMEMBERSOFiNEER4-23-03.htm>.

Dr. Vaclav Roubicek sent out a memorandum on May 28, 2003 regarding the acceleration of nanotechnological research. Specifically, he posed three questions to respondents asking for

opinions on how iNEER should go about meeting this new technological surge. Dr. Roubicek's letter is available at:

<http://www.ineer.org/AboutUs/MEMORANDUMTOiNEERCOMMUNITY5-28-03.htm>.

William Begell, a member of the iNEER board, gave a speech to the Fourth Baltic Heat Transfer Conference, entitled "A Personal Retrospective Celebration." In it, he discussed his Lithuanian origins and its relationship to his devotion to the study of single-phase heat transfer. He also discussed the current state of affairs in that field within the former Soviet republic. To read his speech in its entirety, please visit:

<http://www.ineer.org/iNEERInfo/Begell-ALGIRDASZUKAUSKAS.htm>.

Several other items worthy of note were sent via e-mail to the iNEER community. On February 10<sup>th</sup>, the Secretariat sent an e-mail regarding changes for the 2003-2004 year and the passings of Dr.'s Chang-Lin Tien and A.C. Gangadharan. Biographies and eulogies of Dr. Tien and Dr. Gangadharan are available at:

<http://www.ineer.org/iNEERInfo/CLTien10-30-02.htm> (Tien)

and <http://www.ineer.org/iNEERInfo/GangaMemorial212-31-02.htm> (Gangadharan).

An e-mail to the iNEER community from the Secretariat dated May 28, 2003 focused on the rapidly expanding field of nanotechnology. The e-mail in its original format can be viewed at: <http://www.ineer.org/ITEMS/5-28-03ITEM.htm>.

Another e-mail sent to the iNEER community on November 25, 2003 announced the establishment by the U.S. National Science Foundation of the Center for Nano-Chemical-Electrical-Mechanical Manufacturing Systems, "which aims to build on recent discoveries in nanotechnology to revolutionize the nation's nanomanufacturing capabilities. Nano-CEMMS research will target development of a path-breaking, commercial-scale manufacturing tool that can build devices and systems at nanometer scale (one inch contains  $2.54 \times 10^7$  nanometers)." A full description of Nano-CEMMS and its goals are available at:

<http://www.ineer.org/ITEMS/11-25-03ITEM.htm>. Click on the hyperlink at the bottom of the e-mail.

#### **D. Board/Committees**

The iNEER Board of Editors is responsible for the creation and publication of the annual *iNEER Special Volume*. For 2003, Board members were: Win Aung, Michael Hoffman, Ng Wun Jern, Robert W. King, and Luis Manuel Sanchez Ruiz. Their biographies can be read at:

<http://www.ineer.org/Committees/2003VOLBOARDOFEDITORS4-2-03.htm>.

The 2003 iNEER Awards Committee members were: Susan M. Brays, Martha Centenna, Tomas Cermak, Hamadou Salliah-Hassane, Victor Schutz, and Wojciech Zielinski. Their biographies are posted at:

<http://www.ineer.org/Committees/2003iNEER AwardsCommittee.htm>.

#### **E. "Innovations 2003" - iNEER Special Volume**

The iNEER Special Volume is an annual publication that documents innovative engineering education methods and research. Starting in 2003, this series of annual hardcover books has been retitled as the Innovations Series. Several sections of the 2003 publication can be accessed online at: <http://www.ineer.org/iNEERPapers/Welcome.htm>.

iNEER welcomes online orders for its annual special volumes. Orders for the 2003 iNEER Special Volume and all other special volumes may be placed at: [http://www.ineer.org/Orders\\_Registration/books.asp](http://www.ineer.org/Orders_Registration/books.asp).

## **F. WISC and PASI Programs**

### *WISC Grants for Women's International Science Collaboration Program*

WISC, a joint activity between AAAS and NSF, awards small travel grants on a competitive basis to U.S. scientists to assist them in planning and designing new collaborations with colleagues in the rest of the world. These activities are expected to lead to full research proposals that are submitted to the National Science Foundation or other funders. Deadlines to submit proposals were January 15 and July 15, 2003. Complete rules and regulations are available at: <http://www.ineer.org/Announcements/WISCGrants12-16-02.htm>. Click on hyperlink at the bottom of the page.

### *Pan-American Advanced Studies Institutes Program (PASI)*

The "Pan American Advanced Study Institutes" (PASI) Program is a jointly supported initiative between the U.S. Department of Energy (DOE) and the U.S. National Science Foundation (NSF). Pan American Advanced Studies Institutes are short courses of two to four weeks duration, involving lectures, demonstrations, research seminars and discussion at the advanced graduate and post-doctoral level. PASI's aim is to disseminate advanced scientific and engineering knowledge and stimulate training and cooperation among researchers of the Americas in the mathematical, physical, and biological sciences, and in engineering fields. Whenever feasible, an interdisciplinary approach is recommended.

The Principal Investigator (PI) shall be the designated contact person for the Institute and is expected to provide leadership in fully coordinating and integrating its activities. The PI is responsible for (a) the preparation of the scientific and/or engineering program, (b) the selection of lecturers and students, (c) the administration of the meeting, and (d) the publication of lectures and proceedings from the meeting.

Approximately 6 to 8 awards will be made yearly to U.S. research institutions or professional societies for the purpose of organizing a PASI.

The annual expenses for the operation of any one institute may not exceed \$100,000. Salaries will not be supported by these awards although a reasonable stipend for a graduate student to assist with the organization of the PASI pre- and post- meeting will be allowed. In addition, student participants from industry are expected to cover their own costs.

For complete rules and regulations, go to:

<http://www.ineer.org/Announcements/PanAmericanASI12-12-02.htm>. Click on hyperlink at the bottom of the page.

#### **F. IASEE-2003 at Sao Paulo, Brazil, March 24-26, 2003**

The Ibero-American Summit on Engineering Education (IASEE) was held at the “Universidade do Vale do Paraíba.” The organizers of the event - UNIVAP, PUC-Rio, University of Florida in Gainesville, Universidad de Puerto Rico, Mayagüez, ISTEAC and Hewlett Packard (HP), which is also a co-sponsor of the event, identified as one of the main motivations for that meeting: the integration among the Spanish- and Portuguese-speaking Latin American countries in an international effort towards the development and the improvement of engineering education.

This summit is the first step of a process that aims to define an Engineer of the Americas as a professional prepared to move seamlessly throughout the Continent of the Americas. A final outcome of the process, started in the March 2003 meeting in Brazil, is to characterize assessment procedures and accreditation mechanisms that will encourage engineering programs in the Americas to offer curricula that instill the necessary attributes of such a professional. Details regarding the Ibero-American Summit on Engineering Education can be found at:

<http://www.ineer.org/Events/Events.asp?SesID=&SesUser=&RetDoc=&ListStatus=All&Typ=20&Days=30&RetEvent=Events.asp&ShowEvent=9&Status=Show&Active=True&Country=Brazil>.

This IASEE also has a direct link at: <http://www.univap.br/iasee/>.

#### **G. ICEE-2003 at Valencia, Spain, July 22-26, 2003**

iNEER held a Plenary Partnership workshop on July 21, 2003 at the Polytechnic University of Valencia in Valencia, Spain. This preceded the main conference that was held later that day. A model designed to evaluate partnering opportunities, establish selection criteria, and apply a tool to guide partnership formation was presented to a panel of international university and corporate representatives that reacted to the model based on their real-world experiences. The presenters for this workshop were Susan M. Bray and Kim Scalzo, both of Rensselaer Polytechnic Institute. The workshop coordinator was Win Aung.

The central theme of this International Conference on Engineering Education was teaching innovation, and the increasing importance of university-industry collaboration and international partnerships as tools to achieve high quality teaching. More details can be accessed at:

<http://www.ineer.org/Events/Events.asp?SesID=&SesUser=&RetDoc=&ListStatus=All&Typ=20&Days=30&RetEvent=Events.asp&ShowEvent=9&Status=Show&Active=True&Country=Brazil>.

ICEE-2003 also has a direct link at: <http://www.upv.es/ICEE2003/>.

Papers to be presented at this conference were classified by both countries and by topics discussed. The abstract listing the paper count by topic can be read at: <http://www.ineer.org/Events/ICEE2003Info/ICEE-2003AbstractCountrybyCountries2-7-03.htm>,

while the count by country can be found at: <http://www.ineer.org/Events/ICEE2003Info/ICEE-2003AbstractCountbyAreas2-7-03.htm>. Both links were published on February 7, 2003.

The Valencia conference program, published on July 7, 2003, is available online at: <http://www.ineer.org/Events/EventDet.asp?ShowEvent=7&RetDoc=Icee2003Info/Welcome.htm>

The iNEER Secretary-General made opening remarks at the Valencia conference. The formation of the new iCEER-ISC, with the first iCEER conference to be held in 2004 in Ostrava, Czech Republic, was the main topic. To read the Secretary-General's opening day speech, visit: <http://www.ineer.org/Events/ICEE2003Info/07-22-03OpeningSession.htm>.

The 2003 iNEER Awards were presented at the ICEE-2003. The iNEER Leadership award went to Professor Gretchen Kalonji; Professor Ramiro Jordan received the iNEER Achievement Award; and Professor Shobha K. Bhatia was given the iNEER Recognition Award. Biographies and lists of accomplishments for each of the recipients are available at: <http://www.ineer.org/Awards/Welcome.htm>. Click on each awardee's name.

Photos of the ICEE-2003 conference at Valencia, Spain are available at <http://www.ineer.org/Photo/Welcome.htm>. Each day of the conference has its own set of photos; click on the day's hyperlink to view them.

## **H. Other Papers and Reports**

Dr. Joseph Bordogna, Deputy Director of the National Science Foundation, delivered an address to the Asian American Pacific Islander Workshop held at Arlington, Virginia on November 3, 2003. His address can be viewed at: <http://www.ineer.org/Special/BordognaRemarks11-3-03XXXX.htm>.

## **I. Operation of iNEER Secretariat and Financial Report**

As in previous years, the Secretary General conducts iNEER business from his residence in Potomac, Maryland, USA. He donates to iNEER the time that he spends on performing iNEER work. The total number of hours donated by him for the current reporting period was approximately 1000 hours. He continued to be assisted by Annie Aung, a consultant who served as Administrative Director of iNEER. She is hired in accordance with Paragraph K.1 of the By-Laws.

The 2003 financial report and the auditor's report for iNEER were prepared by a chartered public accountant; please see the following attachments.

Respectfully Submitted,

Win Aung, Ph.D., P.E., Dr.h.c.  
Secretary General

iNEER

## REPORT OF THE INDEPENDENT AUDITOR

To the Board of Directors of  
International Network for Engineering Education and Research (iNEER):

We have audited the accompanying balance sheets of International Network of Engineering Education Research (iNEER) as of December 31, 2003 and 2002, and the related statements of income and expenses, cash flows and accompanying receipts for the years then ended. These financial records are the responsibility of the Organization's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of iNEER as of December 31, 2003 and 2002, and the results of its operations and its cash flows for the years then ended, in conformity with generally accepted accounting principles.

Neng-Hsiang Wang, CPA  
Wang & Associates, CPAs  
606 Seventh Street, S.W.  
Washington, D.C. 20024-2402  
U.S.A.  
Tel: (202) 479-0744  
Fax: (202) 479-4218

March 28, 2004



	For the Twelve Months Ended December 31, 2003			For the Twelve Months Ended December 31, 2002		
	MD	NJ	TOTAL	MD	NJ	TOTAL
Cash Flows from operating activities						
Net Income	\$ 5,744.53	\$ 16,421.52	\$ 22,166.05	\$ 9,962.00	\$ 33,802.84	\$ 43,764.84
Adjustments to reconcile net income to net cash provided by operating activities						
Loans from officers				100		100
Total Adjustments	0.00	0.00	0.00	100.00	0.00	100.00
Net Cash provided by Operations	5,744.53	16,421.52	22,166.05	10,062.00	33,802.84	43,864.84
Cash Flows from investing activities						
Used For						
Net cash used in investing	0.00	0.00	0.00	0.00	0.00	0.00
Cash Flows from financing activities						
Proceeds From						
Used For						
Net cash used in financing	0.00	0.00	0.00	0.00	0.00	0.00
Net increase <decrease> in cash	\$ 5,744.53	\$ 16,421.52	\$ 22,166.05	\$ 10,062.00	\$ 33,802.84	\$ 43,864.84
Summary						
Cash Balance at End of Period	\$ 15,806.53	\$ 50,224.36	\$ 66,030.89	\$ 10,062.00	\$ 33,802.84	\$ 43,864.84
Cash Balance at Beg of Period	(10,062.00)	(33,802.84)	(43,864.84)	0.00	0.00	0.00
Net Increase <Decrease> in Cash	\$ 5,744.53	\$ 16,421.52	\$ 22,166.05	\$ 10,062.00	\$ 33,802.84	\$ 43,864.84

## NOTES TO FINANCIAL STATEMENTS:

1. **The International Network for Engineering Education and Research, Inc. (iNEER)** is a Maryland-based non-profit organization, which was incorporated on July 16, 2002 as a Maryland corporation. Through collaboration in education and research, the iNEER works with members from both industrialized and developing nations to develop a global network of educators and researchers to help advance education and research around the world, and to achieve mutual progress through international exchanges and linkages, formation of cooperative partnerships, and information sharing to enhance the education experience for students. Membership in iNEER is free of charge
2. A letter dated July 16, 2003 from Internal Revenue Service establishes the following rulings: (1) accounting period ending: December 31; (2) foundation status classification: 509(a)(2); (3) advance ruling periods to begin July 16, 2002; (4) advance ruling period to end December 31, 2006; and (5) addendum not applied.
3. The Secretariat headquarters are divided between the New Jersey Secretariat, which is located at New Jersey Institute of Technology, Newark, New Jersey, and the Maryland Secretariat, which is located in Potomac, Maryland.
4. A comparative analysis of income and expenditures for two secretariat locations mentioned above for the past two years follows:

	<u>Year ending 12/31/03</u>		<u>Year ending 12/31/2002</u>	
	<b>MD</b>	<b>NJ</b>	<b>MD</b>	<b>NJ</b>
Revenue	\$51,184	\$50,355	\$42,359	\$75,000
Expenditures	<u>45,440</u>	<u>33,933</u>	<u>32,397</u>	<u>41,197</u>
Net Income	<u>5,745</u>	<u>16,422</u>	<u>9,962</u>	<u>33,803</u>

5. Although financial activities in both secretariat locations are combined and treated as one activity for financial reporting and audit purposes, it is treated separately for income tax reporting purpose. For tax reporting purpose, iNEER's activities at New Jersey is incorporated into the educational funds of New Jersey Institute of Technology. As to the activities in Maryland secretariat, Form 990 has been prepared and mailed separately to Internal Revenue Service Center, located at Ogden, UT 84201-0027.