In May, Larry Weber assumed the role of the 6th director of IIHR. Dr. Weber, a UI associate professor of civil and environmental engineering, has been appointed by the College of Engineering Dean Barry Butler for an initial three-year term, from May 1, 2004 through Aug. 31, 2007. In announcing the appointment, Butler said of Weber, “He has a great respect for IIHR’s traditions and brings an energy and enthusiasm to promoting new efforts and programs that will ensure our successful future.” Weber, who also serves as Donald E. Bently Faculty Fellow of Engineering and IIHR research engineer, said that his vision for the institute is to achieve international recognition for excellence in fundamental fluids research applied to interdisciplinary science and engineering.

Weber, who joined the college’s faculty in 1996, earned his bachelor’s degree in 1989, master’s degree in 1990 and doctorate in 1993, all from The University of Iowa College of Engineering’s Department of Civil and Environmental Engineering. His current research involves the application of environmental hydraulics and fluid mechanics to the restoration of threatened and endangered freshwater mussels and pacific salmon.

In 2003, Weber and his colleagues received one of the largest external contracts at the university, a nearly $7 million, three-year, contract extension from Public Utility District No. 2 of Grant County, Washington to study how Pacific Northwest salmon can co-exist with hydroelectric dams on the Columbia River.

Weber succeeds V.C. Patel, who directed IIHR for the past 10 years. Patel plans to continue as interim director of the university’s Center for Computer Aided Design (CCAD), professor of mechanical and industrial engineering, and IIHR research engineer.

Butler praised Patel for overseeing significant IIHR progress. Butler said, “He piloted the renovation of the Hydraulics Laboratory and saw its renaming as the C. Maxwell Stanley Hydraulics Laboratory; he spearheaded the effort to fund and construct the Lucille A. Carver Mississippi Riverside Environmental Research Station (LACMRERS) facility; he devoted considerable effort to establishing the very successful course ‘International Perspectives in Water Resources Planning,’ which has featured many countries and areas of the world (to date, India, China, Japan, Taiwan, Hungary, Poland, Romania, Argentina, and Brazil) with future plans to travel to Turkey; and he effectively represented IIHR with skill, tact, and diplomacy within the university and with outside constituencies.”

Since May, Dr. Patel has spent more time on CCAD affairs, traveling in support of CCAD programs, presented papers at conferences in Brisbane, Australia and Rhodes, and Greece, getting caught up on much-postponed down time.

His future plans are to focus on development of CCAD programs, staff and facilities, help the College and its units in development of international programs, help young faculty and staff in their career development, when and if asked, teach, and continue current research on surface roughness effects and interaction between bed roughness and free surface in open channel flow.
IIHR Events:

On October 11th and 12th Keri Hornbuckle held the “26th Annual Midwest Environmental Chemistry Workshop.” Topics discussed included environmental chemistry, environmental toxicology, environmental engineering, atmospheric chemistry, and environmental analysis. Jerald Schnoor (Allen S. Henry Chair Professor of Civil & Environmental Engineering), Vicki Grassian (UI professor of Chemistry), and Dana Kolpin (research hydrologist with the U.S. Geological Survey) were keynote speakers.

IIHR’s 2nd Thanksgiving Celebration, was held on November 20th at the Hampton Inn in Coralville. The event was hosted by SIIHR (President Ceyda Polatel, Vice-President Andy McCoy, Secretary Marty Irvine, and Treasurer Jennifer Nichols).

The theme was Casino Night and included dice, roulette and blackjack, complete with cards from the famous Bellagio Hotel and Casino in Las Vegas, Nevada. IIHR (funny) money and undergraduate student ASCE member dealers helped to make the event a huge success. V.C. Patel and Andy McCoy gave welcoming remarks.

On December 3, IIHR hosted the U.S. Geological Survey (USGS) in their celebration of 100 years of streamflow monitoring at the Iowa River gaging station, which lies just south of the C. Maxwell Stanley Hydraulics Laboratory (SHL). A Century Gage Dedication Ceremony and Reception was held in the SHL seminar room. The streamflow monitoring gage has provided information to the City of Iowa City, the University of Iowa, and the surrounding region that has aided in decision-making regarding flood forecasting, wastewater treatment plant discharge, water intake for power plant usage, and research on trends and models.
History (cable TV) Channel writer/producer Scott Goldie and his film crew visited IIHR on Friday, January 23, to film for a “Modern Marvels” special on the History of Hydraulics. Although this special focuses primarily on mechanical hydraulics, Goldie was drawn to the UI by IIHR’s historical expertise and the History of Hydraulics Rare Book Collection. Goldie interviewed Professors Jacob Odgaard, Thanos Papanicolaou, and Larry Weber about the Bernoullis, Ancient Greece, and the history of hydropower. He photographed images from several rare books, as well as the Hydraulics Laboratory. The one-hour special aired on May 12th.

IIHR’s archives were also used by the Johnson County Historical Society in its planning of a permanent display concerning the original Iowa River Power Company and its generation of electricity. The display will be constructed next to the footbridge soon to be constructed over Coralville’s settlement-era dam over the Iowa River.

The University of Iowa College of Engineering inducted into the "Legacy of Engineering". A new distinction created to recognize faculty, staff, alumni, and friends who made exceptional historical contributions toward advancing the college in teaching, research, or service.

Francis Murray Dawson, director, Iowa Institute of Hydraulic Research (IIHR), 1936-44; professor of engineering and dean, College of Engineering, 1936-59.


John F. Kennedy, professor of fluid mechanics and director, IIHR, 1966-91; chair, Division of Energy Engineering, UI College of engineering, 1974-76; Carver Professor, 1981-87; Hunter Rouse Professor of Hydraulics, 1987-91.

Floyd Nagler, professor of hydraulic engineering, 1920-33; director, Hydraulics Laboratory, 1920-31; founder and director, IIHR, 1931-33.

Hunter Rouse, professor of fluid mechanics, 1939-72; director, IIHR, 1944-65; dean, College of Engineering, 1966-72; Carver Professor, 1972-76.
Underway at LACMRERS:  

Under the guidance of Tatsuaki Nakato LACMRERS is progressing. Student research and large group workshops have proven to be a great success.

On October 8th, 9th, and 10th, IIHR Director V.C. Patel and Associate Director Larry Weber held the “First Iowa Workshop on Large Rivers.” Prominent engineers from around the world came to discuss Computational Modeling of Large River Hydraulics. The second annual workshop is to be held this October, hosted by Thanos Papanicolou.

Richard Hooper, President and Executive Director of the Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI), and his assistant, Jon Duncan, visited the Lucille A. Carver Mississippi Riverside Environmental Research Station on April 21st with Bill Eichinger, Witold Krajewski, Walter Illman, and Marian Muste. Tatsuaki Nakato presented an update on LACMRERS activities that focused on recent ecological research on the Upper Mississippi River. This event was arranged by Witek Krajewski, the University of Iowa Representative to the CUAHSI.

Battling with threatening weather conditions on the mighty Mississippi, twenty students and one faculty member geared up in rubber coveralls on May 20th to clean up a stretch of the Mississippi River as an IIHR annual student event at LACMRERS. Bikini Island is where most of the trash cleanup was concentrated. Efforts were coordinated with Melanie and Doug Morse, who are part of the “Adopt a Mississippi River Mile” organization. Trash was transported via Nate Young, a graduate research student at IIHR, who operated the LACMRER’s 18-ft Jon boat. Two other 20-ft pontoon boats also helped out. Students that helped out include; Casey Kramer, Nate Young, Carrie Fitzgerald, Jim Fox, Celalettin Ozdemir, Nobuaki Sakamoto, Talia Tokay, Pelin Idil, Mete Koken, Gabriele Villarini, Yongli Zhao, Jie Zeng, Yi Yang, Haibo Liu, Xiujuan Geng, Xiongbin Liu, Kazuyuki Kai, Xing Tao, and Ozan Gulcu. Dr. Tatsuaki Nakato, also helped out. - Submitted by Casey Kramer.
Witold Krajeski has been named a Fellow of the American Geophysical Union (AGU). The honor was presented at the fall 2003 AGU meeting for his “fundamental contribution to the advancement of geophysical aspects of hydrometeorology, especially path-breaking work on the validation and uncertainty quantification of radar precipitation and inspired leadership on measurement science teams.”

K.B. Chandran, professor and chair of Biomedical Engineering, along with three colleagues received a 4-year $1.4 million grant from the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health (NIH) to develop a computer simulation for biological prosthetic valve function that may help engineers and physicians improve prosthetic heart valve durability.

Professor Chandran was also appointed to a second five-year term as The University of Iowa Biomedical Engineering Departmental Executive Officer.

K. B. Chandran, has been selected to receive a Regents Award for Faculty Excellence. This award was established in 1990 by the Iowa Board of Regents with the Faculty Senates of the Regents institutions. Dr. Chandran was recognized “on the basis of his sustained record of excellence across the spectrum of faculty endeavors.” Along with recipients from other state institutions, he will be honored at a dinner September 14 when the Board meets in Iowa City, and also later at the University Convocation, October 5.

Marian Muste won a Senior Scholar Fulbright Award to conduct research in Germany for three months in fall 2004. The award recognizes professional standing and substantial professional accomplishments. Fulbright awards aim to advance mutual understanding, establish long-term cooperation, and create opportunities for institutional linkage.

He says he plans to use his Fulbright to further study aspects of sediment transport using non-intrusive, laser-based techniques and integration of real-time monitoring techniques in the management of the aquatic environment.

The University of Iowa Women in Science and Engineering (WISE) program announced IIHR graduate student Ceyda Polatel as a recipient of a 2003 fall semester Dr. Eunice Schuytema Bean Travel Grant Program award. Ceyda delivered an oral presentation, “Students of IAHR – Iowa Chapter Activity.”

Matthew McConville and John Mousel were awarded the 2003 and 2004 John F. Kennedy Memorial Fellowships. Shae Hoschek was awarded the 2003 and Michael Cloos the 2004 James L. Shive Memorial Scholarships at the College of Engineering Graduate Luncheon on April 30th at the Iowa Memorial Union.

Mekonnen Gebremichael was awarded a NASA Earth Systems Science Fellowship. One of the few fellowships available for international students. This fellowship is very competitive, and available to all earth sciences. The amount of the award is $24,000/annum, which may be used to
SIIHR announced the election of new officers in November Gabriele Villarini (President), Talia Tokyay (Vice-President), Shae Hoschek (Treasurer), Casey Kramer (Secretary), and Carrie Fitzgerald (Webmaster).

IIHR Graduate Student **Alexandros Ntelekos**, won the 2004 Best Poster Award in Civil and Environmental Engineering on Thursday April 29th at The University of Iowa, College of Engineering, Research Open House. The event took place at the Seamans Center for the Engineering Arts and Sciences.

**Alumni - Friends News:**

A biography of **John Craven** (PhD 1951) titled “The Old Man and The Sea” was featured in the June 2004 issue of Hawaii Business magazine.

**Matahel Ansar** (PhD 1997) was appointed Director of Operations and Hydro Data Management Division of the Supervisory Control and Data Acquisition System Engineering Team. the South Florida Water Management District.

**Forrest Holly** was named the ASCE, Iowa sections Outstanding Engineer of the Year at a ceremony in September 2003.

IIHR advisory board member **Francois Abboud** was awarded the 2004 Distinguished Scientist Award by the American College of Cardiology.

**Ehad Meselhe** (Ph.D. 1994) has accepted a position as an Associate Editor of the Journal of Hydraulic Research.

**Eric Paterson** (PhD 1994) has been appointed as Associate Professor in Mechanical and Nuclear Engineering at The Pennsylvania State University in College Station, Pennsylvania.
Greggs Thomopolous (President and CEO of Stanley Consultants Group and member of the IIHR advisory board) was elected to the executive committee of the International Federation of Consulting Engineers.

Former IIHR Professor of Mechanical Engineering Allen T. Chwang (from 1978 to 1992), now Sir Robert Ho Tung Professor and Head of Department of Mechanical Engineering, University of Hong Kong, was elected an Academician in the Chinese Academy of Sciences (CAS). The official ceremony was held on Friday, Dec. 5, 2003, when Professor Chwang presented a lecture at the Hong Kong Science Museum.

In January IIHR Alumni Ben Huang (PhD ‘88) was appointed Director of Higher Education for the Republic of China, Ministry of Education.

Mahesh C. Chaturvedi (M.S. 1960, PhD, Mechanics and Hydraulics, 1962)(left) and Turgut Sarpkaya (right) (PhD, Mechanics and Hydraulics, 1954) were inducted into The University of Iowa, College of Engineering, Distinguished Alumni Academy at a ceremony that took place on June 12th at the Karro Athletic Hall of Fame.

Salt Lake City, EWRI Congress, July 2004, The following Iowans feature in the photo
Fangbiao Lin, Hung-Pin Huang, Ehab Meselhe, Marian Muste, Larry Weber, Marty Teal, Matahel Ansar, Marcelo Merino, and Junke Guo.
Not shown: Robert Ettema, Tatsuaki Nakato, Thanos Papanicolaou, Fred Ogden, Brian Barkdoll and Jacob Odgaard.
**Appointments: Staff Changes**

George Constantinescu (Ph.D.’97) returned to IIHR with permanent appointment as Assistant Research Engineer in our computational fluid dynamics program in May 2003. He was promoted to Associate Professor in October 2003.

Pablo Carrica who came to IIHR in 2002 as a visiting Associate Professor in the Department of Mechanical & Industrial Engineering, was appointed as an Associate Research Engineer starting fall 2004.

Grzegorz Ciach who started at IIHR as a Postdoctoral Associate in 2002, was appointed as an Associate Research Engineer in December 2003.

Shop manager Darian DeJong (B.S.E. ’90 Mechanical Engineering) was promoted to Engineer III. Darian has been with IIHR since 1996, and has been instrumental in the initiation of major transformations to the IIHR shops.

Jennifer Nichols (M.S. ’03 Civil and Environmental Engineering) was appointed as an Engineer I at IIHR-Hydroscience & Engineering.

Ralph Altmaier was promoted to the position of full time Research Engineer I in August of 2003.

Chris Buren was promoted to the position of full time Research Engineer I in August of 2003.

Andrew Hinman was hired as a lab Mechanic Technician in July of 2003.

Ryan Baumert left IIHR in August to pursue a career opportunity in the Marketing department of The University of Iowa, College of Business. We wish him well.
**Visitors**

Andreas Mueller from ETH Swiss Federal Institute of Technology, in Zurich visited IIHR in October. He spent time working with Jacob Odgaard and Robert Ettema, and attended part of the workshop held at LACMRERS.

Dominique Creutin, Director of the Laboratory of Study of Transfers in Hydrology and Environment (LTHE) and Director of Research at the French Center National Scientific Research (CNRS), visited IIHR from November 3rd-7th to work with Dr. Marian Muste.

Sharon Parkinson, of Idaho Power, Inc., came to IIHR from the 9th through the 13th of February to meet with Larry Weber and view IIHR numerical and laboratory models of the Brownlee Power Canal.

Shane Moeyken from Fluent Inc., an industrial CFD company, and R. Ganesh Rajagopalan, Associate Professor of Aerospace Engineering & Engineering Mechanics at Iowa State University, visited IIHR on the 12th of February to work with Fred Stern. Collaboration concerned an NSF course and laboratory development, educational materials, and development of a sponsored project integrating CFD into undergraduate engineering courses and laboratories. Faculty partners include UI, Iowa State, Cornell University, and Howard University. The University of Iowa leads the principal investigators on this project.

Robert Jablonski of Pella Corporation toured IIHR labs with Larry Weber on March 5th.

Dennis Flanagan, Purdue University, visited from the 9th to the 11th of March and worked with Thanos Papanicolaou.

Joe Z. Gailani, US Army Corps of Engineers, toured the C. Maxwell Stanley Hydraulics Laboratory (SHL) and LACMRERS on March 11th with Larry Weber and Thanos Papanicolaou.

Brian Barkdoll (Ph.D.97), Michigan Technological University, Roger Kuhnle, U.S. Department of Agriculture, and Bruce Melville, University of Auckland, New Zealand, all came to IIHR on March 22nd to work on scour with Robert Ettema.

Bob Driggs, Dean of Math and Science and Debbie Carrico, Department of Math and Science, Kirkwood Community College, visited IIHR on April 7th for a meeting to draft a proposal with Marian Muste.

---

**New on the Web**

Many of the items in this newsletter are also on our web site at [www.iihr.uiowa.edu](http://www.iihr.uiowa.edu). When was the last time you checked us out on the web? We are continually adding new items, thanks to the hard work of Anton Kruger.

IIHR’s archives are now catalogued and posted online. They can be accessed at: [http://www.iihr.uiowa.edu/focusareas/history/archives.html](http://www.iihr.uiowa.edu/focusareas/history/archives.html). Click on a record set of interest, and do a word search for a person or topic of interest.

Look at the IIHR’s history website for additional archived materials, as well as summaries of IIHR’s history and history-related projects: [http://www.iihr.uiowa.edu/focusareas/history.php](http://www.iihr.uiowa.edu/focusareas/history.php).
Friends Who Have Died

Unfortunately our news of the year inevitably includes friends who have died. This year is no exception. Among our losses are:

**Mr. Sudhendu K. Guha** (M.S., Mechanics & Hydraulics, 1932 and B.S.S.E., Electric & Computer Engineering, 1931)

**Dr. Chen Huan Hsia** (Ph.D., Mechanics & Hydraulics, 1943)

**Mr. Kwang-Wen Liu** (M.S., Mechanics & Hydraulics, 1937)

**Mr. Jung-Ko Peng** (M.S., Mechanics & Hydraulics, 1937)

**Dr. Tsung-Pei Tsui** (M.S., Mechanics & Hydraulics, 1935 Ph.D., Mechanics & Hydraulics, 1937)

**Mr. Jose O. de Abreu Lima** (M.S., Mechanics & Hydraulics, 1951)

**Dr. Hsuan Kuo** (M.S., Mechanics & Hydraulics, 1939)

IIHR Alumni Update

IIHR would love to get more information about you, our alumni. What’s going on in your life? Please let us know if you have moved, married, had children, or changed jobs. Contact Laura Myers at (319) 335-5253 or by e-mail at laura-l-myers@uiowa.edu.

IIHR Faculty and Alumni,

Most of us are familiar with the first volume of the Selected Writings of Hunter Rouse. However the book was printed in such small quantities that it has become increasingly difficult to obtain. IIHR is down to its last copies. If you have a copy you are willing to part with, we would be very grateful if you could send it to us, care of ~

Prof. Robert Ettema  
323D C. Maxwell Stanley Hydraulics Laboratory  
IIHR - Hydroscience & Engineering  
The University of Iowa  
Iowa City, IA  52242-1585
## IIHR Advisory Board 2004-2005

<table>
<thead>
<tr>
<th>Name</th>
<th>Title and Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Francois Abboud</td>
<td>Interim Associate Vice President for Health Affairs and Professor, Department of Internal Medicine, The University of Iowa College of Medicine</td>
</tr>
<tr>
<td>Mr. Jon Duyvejonck</td>
<td>Upper Mississippi River Conservation Committee Coordinator, U.S. Fish and Wildlife Service</td>
</tr>
<tr>
<td>Dr. Vijay Gupta</td>
<td>Professor and Fellow, Co-op Institute for Research in Environmental Sciences, University of Colorado</td>
</tr>
<tr>
<td>Dr. Jerry Hatfield</td>
<td>Laboratory Director, U.S. Department of Agriculture/ARS National Soil Tilth Laboratory</td>
</tr>
<tr>
<td>Dr. James R. Houston</td>
<td>Director, U.S. Army Engineering Research and Development Center</td>
</tr>
<tr>
<td>Dr. Ramesh Kanwar</td>
<td>Professor, Agricultural and Biosystems Engineering, Iowa State University</td>
</tr>
<tr>
<td>Mr. Asger Kej</td>
<td>Managing Director, DHI Water and Environment</td>
</tr>
<tr>
<td>Dr. Ken Lubinski</td>
<td>Fish and Wildlife Biologist, U.S.G.S. Upper Midwest Environmental Sciences Center</td>
</tr>
<tr>
<td>Dr. Richard K. Miller, President</td>
<td>Franklin W. Olin College of Engineering</td>
</tr>
<tr>
<td>Dr. William B. Morgan</td>
<td>Retired Head of Hydromechanics Directorate, U.S. Navy David Taylor Model Basin</td>
</tr>
<tr>
<td>Dr. Michael Ports (Vice Chair)</td>
<td>Director, Urban Watershed Management, Black &amp; Veatch Corporation</td>
</tr>
<tr>
<td>Mr. Clifford A. Pugh</td>
<td>Manager, Water Resources Laboratory, U.S. Bureau of Reclamation</td>
</tr>
<tr>
<td>Mr. Gregs Thomopoulos</td>
<td>CEO, Stanley, Inc., President and CEO, The Stanley Group</td>
</tr>
<tr>
<td>Dr. Jin Wu</td>
<td>Chair of Outstanding Scholarship and Distinguished Professor of Hydraulic and Ocean Engineering, National Cheng Kung University</td>
</tr>
<tr>
<td>Dr. Diana Horton</td>
<td>Associate Professor, Biological Sciences, The University of Iowa, Iowa City, Iowa</td>
</tr>
<tr>
<td>Ex Officio Members</td>
<td></td>
</tr>
<tr>
<td>Dr. P. Barry Butler</td>
<td>Dean, College of Engineering, The University of Iowa, Iowa City, Iowa</td>
</tr>
<tr>
<td>Dr. Larry Weber</td>
<td>Director, IIHR—Hydroscience and Engineering, The University of Iowa, Iowa City, Iowa</td>
</tr>
<tr>
<td>Paul Below</td>
<td>Departmental Administrator, IIHR—Hydroscience and Engineering, The University of Iowa, Iowa City, Iowa</td>
</tr>
</tbody>
</table>

10/2004