

**This is the Administration and Faculty section of the 1997-1999
University of Minnesota Institute of Technology Bulletin.**

University Regents

Thomas R. Reagan, Gilbert, Chair
H. Bryan Neel III, Rochester, Vice Chair
Robert S. Bergland, Roseau
Julie A. Bleyhl, Madison
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Warren C. Larson, Bagley
David R. Metzen, South St. Paul
Michael O'Keefe, Minneapolis
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Jessica J. Phillips, Morris
Maureen K. Reed, Stillwater
Patricia B. Spence, Rice

University Administrators

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Arts, Sciences, and Engineering
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for Student Development & Athletics
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and Dean of the Graduate School
Thomas H. Swain, Acting Vice President
for Institutional Relations
Mark B. Rotenberg, General Counsel

Institute of Technology Administrators

H. Ted Davis, Dean
Willard Miller, Associate Dean,
Finance and Planning
K. S. P. Kumar, Associate Dean,
Academic Affairs
Peter Hudleston, Associate Dean,
Student Affairs
Linda Bruemmer, Associate to the Dean
Karen Wolterstorff, Associate to the Dean
Richard Hatfield, Director of Development
and External Affairs
Madonna Monette, Finance Director

V. Rama Murthy, Director, Lower Division
Programs, Mr. and Mrs. George W. Taylor
Distinguished Teaching Professor
Robert Pepin, Director, Honors
Samuel Moore, Director, Academic Program
for Excellence in Engineering and Science
Benjamin G. Sharpe, Director, Admissions
Sharon B. Kurtz, Director,
Career Development/Placement
Susan Ellis Marino, Director, Program for Women

Institute of Technology Faculty

In the faculty listing that follows, P.E.
designates licensure as a professional engineer
in Minnesota, unless otherwise indicated.

Recipients of the Horace T. Morse-
Minnesota Alumni Association Award for
Outstanding Contributions to Undergraduate
Education are designated by an asterisk (*).

Aerospace Engineering and Mechanics

Regents' Professor

Daniel D. Joseph, Russell J. Penrose Professor

Professor

William L. Garrard, *head*
Gordon S. Beavers
Jerald L. Ericksen, emeritus
Roger L. Fosdick
Philip G. Hodge, Jr., emeritus
C. C. Hsiao, emeritus
Richard D. James
Thomas S. Lundgren
Robert Plunkett, emeritus
Tayfun E. Tezduyar
William H. Warner, emeritus
Theodore A. Wilson

Associate Professor

Amy E. Alving
Gary J. Balas
Graham V. Candler
Dale Enns (adjunct)
Perry H. Leo, *director of undergraduate studies*
Ellen K. Longmire, *director of graduate studies*
Thomas W. Shield
Eugene Stolarik, emeritus
Lev Truskinovsky
Yiyuan Zhao
Andrew Vano, *director of engineering intern
program, Akerman Adjunct Professor of Design*

Astronomy

Professor

Kris Davidson
 John M. Dickey
 Robert D. Gehrz
 Roberta M. Humphreys
 Terry J. Jones, *director of undergraduate studies*
 Thomas W. Jones
 Leonard V. Kuhi
 Lawrence Rudnick
 Evan D. Skillman, *director of graduate studies*
 Paul R. Woodward

Biosystems and Agricultural Engineering

Professor

Frederick G. Bergsrud
 Kevin A. Janni, P.E., *director of graduate studies*
 R. Vance Morey, *head*
 John L. Nieber, P.E.

Associate Professor

Mrinal Bhattacharya
 James J. Boedicker
 Jonathan Chaplin, C.Eng., P.E.
 Charles J. Clanton, P.E.,
director of undergraduate studies

Philip R. Goodrich, P.E.
 Larry D. Jacobson, P.E.
 John M. Shutske
 William F. Wilcke, P.E. (Iowa)
 Bruce N. Wilson, P.E. (Oklahoma)
 Jerry A. Wright, P.E.

Assistant Professor

Roger Ruan
 Anuradha Subramanian

Chemical Engineering and Materials Science

Regents' Professor

L. E. Scriven

Professor

Matthew V. Tirrell, *head*
 Frank S. Bates
 Robert W. Carr, Jr.
 C. Barry Carter
 James R. Chelikowsky
 E. L. Cussler
 John S. Dahler
 H. Ted Davis, *dean*
 D. F. Evans
 Arnold G. Fredrickson
 C. Geankoplis

William W. Gerberich

W.S. Hu
 K. H. Keller
 C. W. Macosko
 Lanny D. Schmidt
 David A. Shores
 W. H. Smyrl
 Michael D. Ward
 John H. Weaver
Associate Professor
 Jeffrey J. Derby
 Lorraine F. Francis
 Alon V. McCormick
 Christopher J. Palmstrom
 John M. Sivertsen
 Friedrich Srienc
 Robert T. Tranquillo

Assistant Professor

Prodramos Daoutidis
 Lorraine F. Francis
 C. Daniel Frisbie
 Richard B. McClurg
 David C. Morse
 Renata M. Wentzcovitch

Chemistry

Professor

George Barany
 Paul Barbara
 Victor A. Bloomfield
 Doyle Britton
 Peter W. Carr
 John S. Dahler
 H. Ted Davis, *dean*
 John E. Ellis
 John F. Evans
 W. Ronald Gentry, *chair*
 Wayne Gladfelter
 Gary R. Gray, *director of undergraduate studies*
 Thomas R. Hoye
 Steven R. Kass
 Kenneth R. Leopold
 Sanford Lipsky
 Hung-Wen Liu
 Timothy P. Lodge
 Kent Mann
 Larry L. Miller
 Wilmer G. Miller
 Wayland E. Noland
 Louis H. Pignolet
 Lawrence Que, Jr.

Michael A. Rafferty
Marian Stankovich
Harold S. Swofford, Jr.
William B. Tolman
Donald G. Truhlar

Associate Professor
Doreen G. Leopold

Assistant Professor
Christopher J. Cramer, *director of graduate studies*

Mark D. Distefano
Craig J. Forsyth
Marc Hillmyer
Eric Munson
Karin Musier-Forsyth
George O'Doherty
Jeffrey T. Roberts
J. Ilja Siepmann
Andreas Stein

Civil Engineering

Professor
Steven L. Crouch, *head*
Roger E. A. Arndt
Patrick L. Brezonik
Andrew Drescher,

Shimizu Professor of Civil Engineering
Cesar Farrell

Efi Foufoula-Georgiou,
director of graduate studies

John S. Gulliver, P.E.
Malcolm T. Hepworth, P.E. (Colorado)
Panos G. Michalopoulos
Gary Parker

Kenneth J. Reid
Michael J. Semmens, P.E.
Charles C. S. Song
Heinz G. Stefan
Yorgos J. Stephanedes, P.E.
Otto D. L. Strack

Associate Professor

Randal J. Barnes
Gary A. Davis
Emmanuel Detournay
Daryl F. Dwyer
Catherine W. French, P.E.
Gerald W. Johnson,

director of undergraduate studies

Joseph F. Labuz, P.E.
David E. Newcomb, P.E., *Minnesota Surveyors
and Engineers Society Miles Kersten Land
Grant Professor of Civil Engineering*

Karl A. Smith
Mark B. Snyder
Henryk K. Stolarski
Vaughan R. Voller

Assistant Professor
Jerome F. Hajjar
Carol K. Shield

Computer Science

Professor
David Du
Ding-Zhu Du
David W. Fox
Vipin Kumar
Arthur L. Norberg
Linda Petzold
J. Ben Rosen, *emeritus*
Youcef Saad, *head*
Eugene Shragowitz
James R. Slagle
Marvin L. Stein, *emeritus*
Wei-Tek Tsai
Pen-Chung Yew

Associate Professor
Daniel Boley, *director of undergraduate studies*

John Carlis
Krzysztof Frankowski, *emeritus*
Maria Gini
Ravi Janardan

Haesun Park
Nikolaos Papanikolopoulos
John Riedl
Shashi Shekhar
Jaideep Srivastava, *director of graduate studies*
Anand Tripathi

Assistant Professor

Chris Dovolis
Mats Heimdahl
Joseph Konstan
Zhiyuan Li
Bamshad Mobasher
Shanghai Teng
Zhi-Li Zhang

Earth Sciences

Regents' Professor
Herbert E. Wright, Jr., *emeritus*

Professor
William E. Seyfried, Jr., *head*
E. Calvin Alexander, Jr.

Subir K. Banerjee,
director of Institute for Rock Magnetism

Roger L. Hooke

Peter J. Hudleston, *associate dean*

Shun Karato

Kerry Kelts,

director of Limnological Research Center

Sally Gregory Kohlstedt

David Kohlstedt, *director of graduate studies*

G.B. Morey

V. Rama Murthy

Chris Paola, *director of undergraduate studies*

Hans-Olaf Pfannkuch

David Southwick,

director of Minnesota Geological Survey

James H. Stout

Frederick Swain, emeritus

Christian Teyssier

David A. Yuen

Associate Professor

Larry Edwards

Emi Ito

Karen Kleinspehn

Mark Person

Adjunct Professor

Val Chandler

Michael Jackson

Robert G. Johnson

Kerry Keen

Peter McSwiggen

James Miller

Carrie Patterson

Anthony Runkel

Lecturer

Kent Kirkby

Electrical Engineering

Professor

Vernon D. Albertson, P.E., emeritus

Frederic N. Bailey

Kevin M. Buckley, *director of graduate studies
for electrical engineering*

J. Alex Carruthers, emeritus

*Paul A. Cartwright, emeritus

Stephen K. Case

Keith S. Champlin

Lorne M. Chanin, emeritus

Stephen Y. Chou

Philip I. Cohen

Robert J. Collins, emeritus

Tryphon Georgiou

Anand Gopinath

B.V. Haxby, emeritus

Jack H. Judy

Richard Y. Kain

Mostafa Kaveh, *head*

John C. Kieffer

Larry L. Kinney, *associate head,*

director of undergraduate studies

K. S. P. Kumar, *associate dean*

Robert F. Lambert, emeritus

E. Bruce Lee

James R. Leger

Ned Mohan

Rolf K. Mueller, emeritus

Marshall I. Nathan

Allen Nussbaum, emeritus

Hendrik J. Oskam, emeritus

Keshab K. Parhi

William T. Peria

William A. Plice, emeritus

Dennis L. Polla

Mahmoud Riaz

William P. Robbins

P. Paul Ruden

Otto H. Schmitt, emeritus

W. G. Shepherd, emeritus

Allen R. Tannenbaum

Ahmed Tewfik

Raymond M. Warner, Jr., emeritus

Bruce F. Wollenberg

Associate Professor

Steven A. Campbell

Vladimir S. Cherkassky

Douglas W. Ernie, *program director of
UNITE Instructional Television*

Ramesh Harjani

Ted K. Higman

James E. Holte

Thomas S. Lee

David Lilja, P.E., *director of graduate studies
for computer engineering*

Jackyun (Jay) Moon

Matthew T. O'Keefe

Gerald E. Sobelman

Andrew R. Teel

Bapiraju Vinnakota

Assistant Professor

Lori Lucke

Laurie Nelson

Guillermo Sapiro

Joseph Telghader

Adjunct Professor
Gregory T. Cibuzar
Barry K. Gilbert
David R. Lamb
David S. Lo
Frank G. Soltis
Julio C. Spinelli
Frederick M. Waltz

Geological Engineering

Faculty listed under Civil Engineering.

Mathematics

Professor
Alfred Aeppli
Stephen Agard
Greg Anderson
Donald G. Aronson
John R. Baxter
Maury Bramson
John A. Eagon
Paul Edelman
Eugene Fabes
Mark Feshbach
Avner Friedman, *director of Institute for
Mathematics and Its Applications, director of
Minnesota Center for Industrial Mathematics*
Bert Fristedt
Paul Garrett
J. Gil de Lamadrid
Jay R. Goldman
Lawrence Gray
Leon W. Green
Robert Gulliver II, *associate director of Institute
for Mathematics and Its Applications*
Morton Harris
Dennis Hejhal
Ettore Infante
Naresh Jain, *head*
Max A. Jodeit, Jr.
Donald Kahn
Harvey B. Keynes, *director of special projects*
N.Y. Krylov, *Ordway Professor*
Walter Littman
Mitchell Luskin
Gennady Lyubeznik
Albert Marden
Charles A. McCarthy
Richard McGehee, *director of Geometry Center*
William Messing
Norman G. Meyers
Willard Miller, Jr., *associate dean*

Richard Moeckel
Wei-Ming Ni
Johannes C. C. Nitsche
Peter Olver
Marian B. Pour-El
Karel Prikry
Edgar Reich
Peter Rejto
Joel Roberts
Mikhail Safonov
Fadil Santosa, *associate director of Minnesota
Center for Industrial Mathematics*
David H. Sattinger
George R. Sell
Yasutaka Sibuya
Steven I. Sperber
Dennis Stanton
David A. Storvick
Vladimir Sverak
Peter Webb
Hans Weinberger
Dennis White

Associate Professor

Scot Adams
Ben Chow
Bernardo Cockburn
Jack Conn
David Frank
E. Gebhard Fuhrken
Hillel Gershenson
Laurence R. Harper
John Lowengrub
Chester L. Miracle
Claudia Neuhauser
Wayne Richter

Assistant Professor

Satyanad Kichenassamy
Nai-Chung Leung
Victor Reiner
John Sullivan

Mechanical Engineering

Regents' Professor

Ernst R. G. Eckert, *emeritus*
Richard J. Goldstein, P.E., *head,*
James J. Ryan Professor
Benjamin Y. H. Liu, *Richard C. Jordan Professor*

Professor

James W. Ramsey, *associate head,*
director of undergraduate studies
Sant Ram Arora

Avram Bar-Cohen, *associate director of Center for the Development of Technological Leadership, James J. Renier Chair*

Perry L. Blackshear, Jr., *emeritus*

Max Donath, *director of Center for Advanced Manufacturing Design and Control*

*Arthur G. Erdman, P.E.

Edward A. Fletcher

Darrell A. Frohrib

Steven L. Girshick

Joachim V. R. Heberlein

*Warren E. Ibele

Richard C. Jordan, *emeritus*

David B. Kittelson

Thomas H. Kuehn, P.E.,

director of graduate studies

Francis A. Kulacki

Tarald O. Kvålseth

Edwin T. Layton

Virgil A. Marple,

director of Cooperative Program

Peter H. McMurry

Katsuhiko Ogata

*Suhas V. Patankar

Emil Pfender, *Ernst Eckert Professor*

David Y. H. Pui, *director of China Center*

Subbiah Ramalingam

Donald R. Riley, *associate vice president for academic affairs, computing*

Yecheil Shulman, *director of Center for*

Technological Leadership, H.W. Sweatt chair

Terrence W. Simon, P.E. (Colorado)

*Ephraim M. Sparrow

Patrick J. Starr

Kim A. Stelson

Kumar K. Tamma

Associate Professor

Thomas R. Chase

Jane H. Davidson

Kevin J. Dooley

William K. Durfee,

Richard and Barbara Nelson Professor

David L. Hofeldt

Barney E. Klamecki

Charles J. Scott

Paul J. Strykowski

Assistant Professor

Saifallah Benjaafar, *Richard and Barbara Nelson Assistant Professor*

John C. Bischof, *Richard and Barbara Nelson Assistant Professor*

Uwe Kortshagen

Perry Y. Li, *Richard and Barbara Nelson Assistant Professor*

Susan C. Mantell, *Richard and Barbara Nelson Assistant Professor*

Lecturer

Tesfahun Berhe

Physics

Professor

Allen M. Goldman, *head*

Benjamin F. Bayman

John H. Broadhurst

Laurence J. Cahill, Jr., *emeritus*

Charles E. Campbell

Hans W. J. Courant, *emeritus*

E. Dan Dahlberg

Dietrich K. Dehnhard

Paul J. Ellis

George D. Freier, *emeritus*

Stephen Gasiorowicz, *emeritus*

Clayton F. Giese

Leonid Glazman

George W. Greenlees, *emeritus*

J. Woods Halley

Morton Hamermesh, *emeritus*

*Kenneth Heller, *director of undergraduate studies*

Norton M. Hintz, *emeritus*

Russell K. Hobbie

Yutaka Hosotani

Cheng-Cher Huang

*Walter H. Johnson, Jr., *emeritus*

Joseph I. Kapusta

Paul J. Kellogg

Anatoly Larkin

Robert Lysak, *director of graduate studies*

Homer T. Mantis, *emeritus*

Erwin Marquit

*Marvin L. Marshak,

senior vice president for academic affairs

Larry McLerran

Keith A. Olive

Robert O. Pepin

Earl A. Peterson

Ronald A. Poling

Serge Rudaz

Keith Ruddick

Alan E. Shapiro

Mikhail Shifman

Boris Shklovskii

Roger H. Stuewer

Hiroshi Suura, emeritus
Yau-Chien Tang, emeritus
Arkady Vainshtein
Oriol T. Valls
Mikhail Voloshin
Cecil J. Waddington, emeritus
Thomas F. Walsh
Walter V. Weyhmann
John R. Winckler, emeritus
William Zimmermann, Jr.

Associate Professor

Cynthia Cattell
Priscilla Cushman
*Roger S. Jones
James Kakalios
Yuichi Kubota
Roger Rusack

Assistant Professor

Eric Ganz
John Wygant

Adjunct Professor

Chandan Dasgupta
Philippe de Forcrand
Kenneth N. Erickson
Stephen Riederer

Statistics

Professor

Seymour Geisser, *director*
Christopher Bingham
R. Dennis Cook
James Dickey
Morris L. Eaton, *chair, theoretical statistics*
Douglas Hawkins, *chair, applied statistics*
Kinley Larntz
Bernard W. Lindgren
Thomas Louis
Glen Meeden, *director of graduate studies*
Gary Oehlert
William D. Sudderth
Luke Tierney
Sanford Weisberg

Associate Professor

Kathryn Chaloner
Charles Geyer
Christian Posse
Frank Martin, *director of statistical center*
Ronald Pruitt

Assistant Professor

Birgit Grund