

# OAKLAND UNIVERSITY

C O M M E N C E M E N T



SCHOOL OF ENGINEERING  
AND COMPUTER SCIENCE



The motto of Oakland University, "*Seguir Virtute E Canoscenza*," which is incorporated in its seal, has a distinguished origin, Canto XXVI, 1. 120, of Dante's *Inferno*.

These are the final words of Ulysses' great speech to his men urging them to sail on and on in pursuit of knowledge and experience of the world—even beyond the pillars of Hercules, traditionally the frontier and limit of legitimate exploration.

This is the three-line stanza:

*Considerate la vostra semenza  
Fatti non foste a viver come bruti  
Ma per seguir virtute e canoscenza*

*Consider your birth  
You were not made to live like brutes  
But to follow courage and knowledge*

# **SCHOOL OF ENGINEERING AND COMPUTER SCIENCE**

**June 6, 1998**

**1:00 p.m.**

**Howard C. Baldwin Memorial Pavilion**

**Oakland University**

**Rochester, Michigan**



# ORDER OF CEREMONY

## Processional

Richard E. Haskell, Marshal  
Hoda Abdel-Aty-Zohdy, Deputy Marshal  
Ronald Srodawa, Deputy Marshal

*The audience is requested to stand and remain standing  
during the processional and the recessional.*

## Welcome

Michael P. Polis  
*Dean, School of Engineering and Computer Science*

## Trustee Welcome

David J. Doyle  
*Vice Chair, Board of Trustees*

## Commencement Address

J. T. Battenberg III  
*President, Delphi Automotive Systems*

## Presentation of John D. and Dortha J. Withrow

## Teaching Excellence Award

## Presentation of Honors

## Presentation of Special Awards

## Presentation of Graduates for Degrees

## Awarding of Degrees

Dagmar R. Cronn  
*Vice President for Academic Affairs and Provost*

## Salutation

John Patrick Srodawa  
*Graduating Senior*

## ALUMNI WELCOME

Christopher Van Dan Elzen, M.S. '96  
*Product Engineer, Automotive Distance Control*

## VALEDICTION

*Dagmar R. Cronn*

## RECESSIONAL

Richard E. Haskell

## RECEPTION

*The Oakland University Alumni Association cordially invites  
graduates, guests, and members of the faculty and staff to the  
reception immediately following the ceremony in the Oakland Tent.*

*Processional and recessional music by Andrea and Brian Moon  
Trumpet and Keyboard*

# ON ACADEMIC REGALIA

An edifying note contributed by a certain anonymous doctor of philosophy.

On at least two solemn occasions during the academic calendar—spring and fall commencement—the faculty of the university publicly displays its full academic regalia and participates in the liturgy of processional and recessional, that curious coming and going that symbolizes the ceremony of commencement. The purposes of commencement are well known, but the reasons for the peculiar garb of the celebrants and their odd order of march are often as obscure to the audience as they are, in fact, to the faculty itself. This note may serve to explain academic dress and the professional pecking order it costumes.

Contemporary academics are descendants of clerical schoolmen in the universities of medieval Europe. Like the clergy, members of the bench and bar, and other learned professions, medieval scholars were clothed in heavy robes to stay warm in unheated stone buildings. Like all members of a hierarchical society, the medieval faculties rejoiced in visible insignia of rank. These outward signs of accomplishment and authority were tailored into the robes. Although the need for such voluminous garments to keep the scholar from freezing is long past, the use of them as

emblems of dignity remains. You will observe that all caps and gowns worn by our faculty are black, with certain disturbing exceptions. Black was the color adopted by mutual agreement among American universities at the end of the 19th century. In Europe each university has its own distinctive gown, varying in color and cut from all others. A European academic assemblage is a far gaudier occasion than its counterpart in America. Recently, certain universities in this country rashly broke the agreement and authorized robes in their own colors: for example, the crimson of Harvard and the green of Dartmouth may be seen in our ranks. This unsuitable spontaneity has been frowned on by sister institutions, yet the mavericks not only persist in their madness, but gain adherents to their ranks with each passing year.

There are three basic academic degrees: the baccalaureate or bachelor's degree, the master's degree, and the doctorate. A special style of robe is prescribed for each. The bachelor's gown is sparsely cut, neat, but a bit skimpy and unadorned, as befits apprentices. The master's gown is still simple, but fuller, sports a sleeve of extraordinary design impossible to describe, and has a



hood draped from the shoulders down the back. Once used to keep the frost from the tonsured heads of medieval clerks, the hood now is solely a badge of a degree of scholarly achievement. The master's hood is small and narrow, but displays the colors of the institution that awarded the degree. If you knew the colors of American universities, you could easily identify whence came our masters. The doctoral robe is the most handsome of academic raiment. Generous of cut, of fine aristocratic stuff, it is faced with velvet and emblazoned with velvet chevrons on the ample sleeves. You will note that most of the velvet facings and chevrons are black, but that some are of other colors.

According to personal taste, the doctor may display the color of his or her doctoral degree on the sleeves and facings: light blue for education, pink for music, apricot for nursing, orange for engineering, and many more. The royal blue of the Doctor of Philosophy (Ph.D.) is the most commonly seen in liberal arts institutions such as Oakland. The doctor's hood is the most elegant of all academic appurtenances. Large and graceful, it is lined in satin with the colors of the university that awarded the degree and is bordered with the color of the degree itself. Most academic costumes include the square cap called a mortarboard; the doctor's tassel may be either black or gold — tassels of all other degrees are black and stringy.

To instructed eyes, the order of march in the processional and recessional reveals the standing of individuals in the institution's formal hierarchy. In the processional the order of entrance into the hall is, quite fittingly, from most junior to most senior. The baccalaureate candidates enter first, followed successively by the masters and doctoral candidates with the whole separated from the faculty by a decent interval. In the faculty order, the instructors precede the assistant professors who in turn are followed by the associate professors. The august full professors bring up the rear. After a respectful distance come the deans who in turn are separated by a significant space from the awful majesty of the platform party, the president, the vice president, and the members of the board of trustees. All remain standing until the board is seated. After the ceremony, the order of recessional is the reverse of the processional. The greatest dignitaries stream out of the hall first, with the artfully organized ranks of priority walloping in their wake.

It is hoped that these notes may make more intelligible the spectacle you are witnessing today. A discerning intelligence may detect in it many clues to an understanding of the academic profession as it confronts the ambiguities of the future with ancient wisdom and dignified confidence.

# DEGREES AWARDED

## December 1997

### DOCTOR OF PHILOSOPHY

#### **Systems Engineering**

Jayaraman Anand

Dissertation: *Image Restoration  
and Compression Using Two-  
Dimensional Predictive Models*

Anthony Dwayne Coopridier

Dissertation: *Techniques for the  
Detection of Changes in Noisy  
Signals with Application to  
Fault Detection in Dynamic  
Systems*

Varsha Kamat

Dissertation: *Finding Multiple Line  
Segments from Two-  
Dimensional Data and Multiple  
Planar Polygons from Three-  
Dimensional Data Using the  
Hough Transform*

### MASTER OF SCIENCE

#### **Computer Science and Engineering**

Diana Casetti

Rina Das

Colleen A. Dickey

Shobana Ganesan

Vasudev S. Goyal

Jeffery Allan Heining

Nishant Kacker

Jeffrey Alan Millington

Quang Ngoc Nguyen

Robert James Okarski

Kaivalya Bachubhai Parikh

Jyothi Puli

Gary Joseph Steffes

Uma M. Subbiah

#### **Electrical and Computer Engineering**

Simon Peter Makar

Gregory A. Martin

Michael Thomas Raggio

Alexander Stoyanovich

Liguo Tang

#### **Engineering Management**

Reinhold Bacher

Andrew Martin Barba

Andreas Bretschneider

Alfred Dolecek

Matthew P. Dudzinski

Sean Michael Dunn

Mohamed Elfighi

Charlie E. Gandy

Wolfgang Gratzner

Raja Hazime

Thomas Hrabal

Jeffrey J. Jaczkowski

Jennifer M. Kelly

Erwin Kruschitz

Stephan Eugene Kupa

Steven Raymond Muylaert

Renee Marie Pearce

Gabriel Pod

Timothy Michael Polulak

Herwig Schinagl

David William Selby

Wolfgang Slawinski

Jared J. Stein

Alen Stolevski

Timothy Allen Waligora

#### **Mechanical Engineering**

Richard John Brettfield

Johnny Fu Che

John Charles Collins

Richard Joseph Czapski

Jill Marie Katic

David John Kramer

Joseph F. Labataille

Shelley Pflanzner Locrone

Michael Richard Mahfetz

Valentin Corey Placencia

Ronald Allen Smith

Mark C. Ware



Li Yang  
Scott William Yarosz  
Ming Yu  
Jianping Yuan  
James Richard Zinke II

**Software Engineering**  
Daniel Steven Kedziorck  
Duane Matlen

**Systems Engineering**  
James Owen O'Connor  
Eric T. Petterson  
Toru Sugiyama  
Ronald James Weiss

## **BACHELOR OF SCIENCE**

### **Computer Science**

Eric Carr  
Geetha Elangovan  
Paul Corden Gavras  
Benjamin Francis Hoogterp  
Michael Kenneth Monnett  
Pavlin A. Patel  
Timothy Dale Sechowski  
Christopher Curtis Vinegar  
Brian Eric Wale

### **Engineering Chemistry**

Tammy Lynn Burt  
Scott David Henry  
Jason A. MacDonald  
Amy Kathryn McHalpine

## **BACHELOR OF SCIENCE IN ENGINEERING**

### **Computer Engineering**

David Paul Behnke, Jr.  
David Hilary Molenda  
Karen Anne Skalny

### **Electrical Engineering**

Mark Lawrence Balcerzak  
Robert K. Cadena  
Scott Richard Christensen  
Daniel Louis Drensek  
Brian Paul Hublein  
Anupama Jasty  
Voytek A. Novak  
Giorgos Panagiotis  
Papanastasopoulos  
Brad Travis Reeser  
Kai Man Siu  
Tyrus Joseph Valascho

### **Mechanical Engineering**

Robert Alan Beckman  
Darren Joseph Campbell  
Patrick Garrett Clor  
Mary Carol Crova  
Wendy Suzanne Dysarz  
Daniel Zawdu Felleke  
Andrew F. Hartman  
John Paul Janabet  
Todd Matthew Kay  
Jeffery Douglas Pagel  
David Owen Parry  
Gustavo Daniel Perezrios  
Adam James Sebastian III  
Bruce Williams, Jr.  
Steven Louis Wink  
Trisha Lauren Winter  
Timothy Paul Worthley

### **Systems Engineering**

Greggory Russell Garrett

# CANDIDATES FOR DEGREES

## April 1998

### DOCTOR OF PHILOSOPHY

#### **Systems Engineering**

Jie Gu

Dissertation: *Tribological Behavior of Cutting Inserts Used in Face Milling*

Christopher John Kobus

Dissertation: *Application of the System Mean Void Fraction Model in Formulating an Equivalent Single-Tube Model for Predicting Various Transient and Unstable Flow Phenomena Associated with Horizontal Multitube Two-Phase Condensing Flow Systems with and without the Effects of Compressibility, Inertia and Thermal and Flow Distribution Asymmetry*

Barbara Ann Oakley

Dissertation: *Towards Noninvasive Pressure Sensing: An Investigation into the Effect of Absolute Hydrostatic Pressure on Photoacoustic Signals in Solutions*

Teik-Khoon Tan

Dissertation: *Hypercube Neural Networks*

Lin Wang

Dissertation: *System Identification and Analysis*

Wei Wang

Dissertation: *A Study of Passive Compliance in Robots*

Yanli Zhou

Dissertation: *The Theory of Minimum Configuration Manifolds with Applications to Redundant Robotic Systems*

### MASTER OF SCIENCE

#### **Computer Science and Engineering**

Eric Michael Bates

Kevin T. Bentley

Rama Chalasani

Harold Todd Chapman

Serban Dutica

Zhao Guo

Elsie Ittoop

Craig Alan Jackson

Cleopatra Doina Laptas

Jody Howard Larrow

Brian Duc Minh Le

Michael Andrew Makowski

Roman Lysle Millett

Phuong Thi Nguyen

Pronoti Roy

Susheela Vaidya

Liz Varghese

## **Electrical and Computer Engineering**

Joseph John Anderson  
Kerry Eden Grand  
James Paul Harrison  
Joseph L. Jablonski  
Paul Robert Jewett  
Joseph George Machak  
Nathan Paul Makarewicz  
Kenneth Russell Martek  
Ambalapuzha S. Rugmini  
Daniel Charles Stevens  
Robert Jeffrey Thomason  
Christopher Alan Warner

## **Engineering Management**

Robert Michael Andres  
Brad Stuart Coval  
Jay Eric Fromm  
Stephen Gregory Heien  
Maynard Linus Isabell II  
Jon Christopher Miller  
Jeremy Matthew Mills  
Dale Scott Norman  
Jon M. Pehrson  
Robert J. Stephens  
Gregory Allen Woodman

## **Mechanical Engineering**

Robert Brack Bengé  
John M. Black  
Steven Andrew Bronczyk  
Richard James Cacioppo  
Darrel Lee Close  
Mary Germanski  
Joseph Robert Gonsowski  
Robert A. Hathaway, Jr.  
Michelle Lynn Hinkle  
Jennifer Kathleen Ignasiak  
Bill Kim  
Ramon Christopher Kuczera  
John Scott Mitchell  
Robert Vincent Mundt  
Mark David Opel  
Tomohiko Oshio

Suresh J. Patel  
Mitchell Keith Pickens  
John Daniel Plonka  
Hongbin Pu  
Jennifer Ann Rajala  
Marisol D. Rodriguez  
Frederick A. Shahly  
MacArthur Lamar Stewart  
Nathan Alan Tison  
Nancy Renee Tosch  
Lisa Marie Van Wynsberghe  
Kenneth Andrew Wolf  
Steven Terence Worley  
Xin Xiao  
Gee-Yuen Yung  
Chad Thomas Zagorski

## **Software Engineering**

Christopher Devon Miles

## **Systems Engineering**

Michael S. Berne  
Frank Ben Burdick  
John Russell Camelon  
Kenneth James LaVictor

## **BACHELOR OF SCIENCE**

### **Computer Science**

Lisa L. Andrews  
Nalini Devi Cherukuri  
Mack Levin Hendricks  
Thomas Leonard Kondrat  
Fonghsuan Ma  
Nadine Ellen Nichols  
Brian C. Sanders  
Brian Patrick Sauger  
Glenn Michael Thompson  
Heather Marie Thueme  
Alan Mark Toby  
Jason R. Warner

### **Engineering Chemistry**

Eric Vaughn Carlsen  
Ruksan Karadayi

## **BACHELOR OF SCIENCE IN ENGINEERING**

### **Computer Engineering**

Muna M. Ali  
Charles Lawrence Hakim  
Paul Michael Horn  
Matthew Brian Hoxsie  
David Patrick LeFevre  
Andrea Alice Macklem  
Trang Tiffany Nguyen  
Leanne Marie Pfeiffer  
Robert Theodore Pike  
Brian Laurence Ruddell  
Craig Brant Strauss  
Robert Suchala

### **Electrical Engineering**

Khashan Farid Alam  
Mitchell Walter Bobrowiecki III  
Timothy Allen Greenen  
Andrew Lee Hays  
Donald Francis Hendrickson, Jr.  
Heather Lynn Hunt  
Steven Ivanovic  
Alan Jason Joseph  
Douglas Richard McGraw  
Louis Karl Nigro  
Jeffrey James Odorico  
Justin Henry Purcell  
Rustyn Ward Robinson  
Eric Allen Ruegsegger  
Joy L. Woodward  
Carlen Yee

### **Mechanical Engineering**

Arthur John Ball  
Thomas Matthew Brain  
Steven Lee Brewer  
Todd Matthew Brissette  
William Leonard Bryant  
Lisa Jennifer D'Agostini  
Margaret Elizabeth Farrell  
David William Haas  
Patrick Raymond Landis  
Carrie Ann Molnar  
Diego German Myers  
Slobodan Bob Nikolic  
Ronald Maurice Noteboom II  
Ross Julius Parpart  
Cynthia Ann Platter  
Timothy Joe Rottman  
Renee Karen Schaller  
Charles R. Schoen  
James Daniel See  
Scott Frederick Seidel  
John Patrick Srodawa  
David Matthew Tabor  
Zachary P. Verkerke  
Jeffrey Jon Volkenant  
Jennifer L. Walker  
Kent Robert Wischmeyer

### **Systems Engineering**

Geoffrey Thomas Clark  
Tierra Linnea Stamps  
Carlen Yee



# ABOUT HONORS AND AWARDS

On the occasion of commencement, the university offers special recognition to those students who have attained outstanding levels of academic achievement and service.

Students who have demonstrated superior performance in the courses of their major subject area are awarded Departmental Honors. The faculty of the School of Engineering and Computer Science has elected several graduating seniors to receive Departmental Honors in engineering or in computer science. They are identified by red cords worn over their academic regalia.

The University Senate of Oakland University has established three levels of University Honors to recognize superior academic performance in all subject areas. Students who have completed at least 62 credits of study at Oakland University and whose cumulative grade point average ranges between 3.60 and 3.74 graduate cum laude. A student who has earned a grade point average between 3.75 and 3.89 graduates magna cum laude. Students attaining the highest academic level, grade point averages of 3.90, and above, graduate summa cum laude. Students who have earned University Honors wear gold cords over their academic regalia.

Additionally, the faculty of the School of Engineering and Computer Science has created several awards to honor graduating seniors who have distinguished themselves by truly outstanding scholarship in engineering studies, by outstanding technical development toward the engineering profession and by exemplary service to the school. These special awards are marked by the presentation of certificates and prizes to the recipients and also by the engraving of the recipients' names on permanent commemorative plaques in Dodge Hall of Engineering.

Membership in the Golden Key National Honor Society, an academic honors organization, is indicated by a purple cord with white tassels worn over academic regalia. The faculty extends most hearty congratulations to all of the students receiving honors and awards at this commencement exercise.

Membership in Tau Beta Pi, the National Engineering Honor Society, is indicated by a brown cord worn over academic regalia.

Membership in Eta Kappa Nu, the National Electrical Engineering Honor Society, is indicated by a royal blue cord worn over academic regalia.

# HONORS AWARDED

## December 1997

### UNIVERSITY HONORS

#### *Magna Cum Laude*

Karen Anne Skalny  
Tyrus Joseph Valascho  
Christopher Curtis Vinegar

#### *Cum Laude*

Brian Eric Wale  
Trisha Lauren Winter

### DEPARTMENTAL HONORS

#### **Computer Engineering**

Karen Anne Skalny

#### **Computer Science**

Geetha Elangovan  
Paul Corden Gavras  
Benjamin Francis Hoogterp  
Michael Kenneth Monnett  
Christopher Curtis Vinegar  
Brian Eric Wale

#### **Electrical Engineering**

Scott Richard Christensen  
Robert K. Cadena  
Tyrus Joseph Valascho  
Kai Man Siu

#### **Engineering Chemistry**

Amy Kathryn McHalpine

#### **Mechanical Engineering**

Darren Joseph Campbell  
Patrick Garrett Clor  
Wendy Suzanne Dysarz  
Trisha Lauren Winter

#### **Systems Engineering**

Greggory Russell Garrett

## University Award

### **Matilda R. Wilson Award**

The Matilda R. Wilson Award is presented annually to an Oakland University Senior woman who has made outstanding contributions as a scholar, leader and responsible citizen to the Oakland University Community.

The 1998 recipient of the Matilda R. Wilson Award is a senior in the School of Engineering and Computer Science:

Tierra Linnea Stamps



# HONORS AWARDED

## April 1998

### UNIVERSITY HONORS

#### *Summa Cum Laude*

Mitchell Walter Bobrowiecki III  
Louis Karl Nigro  
John Patrick Srodawa

#### *Cum Laude*

Colleen A. Hanson  
Andrea Alice Macklem  
Nadine Ellen Nichols

### DEPARTMENTAL HONORS

#### **Computer Engineering**

Muna M. Ali  
Andrea Alice Macklem

#### **Computer Science**

Nadine Ellen Nichols  
Heather Marie Thueme

#### **Electrical Engineering**

Mitchell Walter Bobrowiecki III  
Alan Jason Joseph  
Louis Karl Nigro

#### **Mechanical Engineering**

Thomas Matthew Brain  
Ronald Maurice Noteboom II  
Charles R. Schoen  
John Patrick Srodawa

#### **System Engineering**

Tierra Linnea Stamps

# **SPECIAL AWARDS**

## **SCHOOL OF ENGINEERING & COMPUTER SCIENCE**

### **Exceptional Achievement:**

Awarded annually to the graduating senior in the School of Engineering and Computer Science who, in the judgment of the faculty, has achieved the highest level of scholastic excellence.

Mr. John Patrick Srodawa

### **Academic Achievement:**

Awarded annually to the graduating senior in the School of Engineering and Computer Science who, in the judgment of the faculty, has demonstrated an outstanding level of academic performance.

Mr. Mitchell Walter Bobrowiecki III

### **Service Award:**

Awarded annually to the graduating senior in the School of Engineering and Computer Science who, in the judgment of the faculty, has rendered the greatest service to the School.

Ms. Tierra Linnea Stamps

### **Professional Development:**

Awarded annually to the graduating senior in the School of Engineering and Computer Science who, in the judgment of the faculty, has demonstrated the greatest technical development in his/her studies and shown an outstanding measure of individual initiative in connection with a project.

Mr. Gregory Russell Garrett and Mr. Christopher Curtis Vinegar

### **Teaching Assistant:**

Awarded annually to a Graduate Assistant in the School of Engineering and Computer Science who, in the judgment of the faculty, has provided excellent assistance in teaching.

Ms. Barbara Oakley

# ADVISORY BOARD

Steven M. Abelman  
Oxford Automotive, Incorporated

William G. Agnew, Ph.D.  
Consultant

Hadi A. Akeel, Ph.D.  
FANUC Robotics Corporation

Gerald Cilibrise  
Chrysler Corporation

Samuel L. Cole III  
Ford Motor Company

Herbert H. Dobbs, Ph.D.  
Consultant

Grant R. Gerhart, Ph.D.  
US Army Tank-Automotive RDE Center (TARDEC)

Albert F. Houchens, Ph.D.  
GM Technical Center

Sidney D. Jeffe

Ronald P. Knockeart  
Siemens Automotive

Robert T. Lentz, Ph.D.  
General Dynamics Land Systems Division

Thomas P. Mathues  
ITT Automotive Brake Systems North America

Ron A. May  
Detroit Edison Company

Ronald L. McIntyre

Richard J. Puricelli  
Jac Products

Stephan Sharf  
SICA

S. Carl Soderstrom, Jr.  
Meritor Automotive

James A. Supina

Lawrence W. Tomczak  
Lectron Products, Inc.

Wallace K. Tsuha  
Saturn Electronics & Engineering, Inc.

Jeffery Van Dorn  
Cardell Corporation

Arnold J. Vander Bok  
Detroit Diesel Corporation

John M. Vergoz  
The Budd Company

Thomas H. Vos  
TRW Vehicle Safety Systems, Inc.

# SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

Oakland University's School of Engineering and Computer Science offers instruction leading to the Bachelor of Science in Engineering (B.S.E.); with majors in computer, electrical, mechanical and systems engineering and the Bachelor of Science (B.S.), with a major in computer science. Programs leading to the Bachelor of Science degree in engineering chemistry and engineering physics are offered jointly with Oakland's College of Arts and Sciences. The school also offers graduate programs leading to masters and doctoral degrees.

The school consists of three departments and the Center for Robotics and Advanced Automation (CRAA). The school is of medium size, with 1,200 undergraduate and graduate students and features an outstanding faculty - dedicated to classroom instruction of the highest quality as well as to research in their fields of specialization. Its size permits close student/faculty interaction, small classes and individualized attention.

Undergraduate engineering and computer science programs at Oakland University place an emphasis on a well-rounded education characterized by:

- A broad-based perspective of engineering and computer science that stresses creative thinking - preparation for solving complex technological problems.
- Relevant laboratory instruction as an integral part of course work - giving a balance between theory and practice.
- Integration of computer instruction and utilization throughout the curricula.
- Design and creative development as a central activity of engineering and computer science.
- A social and humanistic perspective through a comprehensive program of general education.

All academic programs at Oakland University are accredited by the North Central Association of Colleges and Schools (NCA). Besides the NCA accreditation, the undergraduate programs in computer, electrical, mechanical and systems engineering are accredited by the Accreditation Board for Engineering and Technology (ABET), and the computer science program by the Computing Sciences Accreditation Board (CSAB).

Graduate programs at the masters level are offered in electrical and computer engineering, mechanical engineering, systems engineering, and computer science and engineering.

The Doctor of Philosophy degree is offered in systems engineering. The goal of the doctoral program is to prepare engineers who have a broad competence that crosses the boundaries of traditional engineering disciplines and who are capable of dealing with complex large-scale problems.

# OAKLAND UNIVERSITY BOARD OF TRUSTEES

Rex E. Schlaybaugh, Jr., *Chairman*

David J. Doyle, *Vice Chairman*

Henry Baskin

David T. Fischer

Louis Grech-Cumbo

Ann V. Nicholson

Dennis K. Pawley

James A. Sharp, Jr.

*Ex officio*

Gary D. Russi, *President of Oakland University*

