OAKLAND UNIVERSITY

COMMENCEMENT

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 wallowing 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 Cooprider
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 Gratzer
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 Brettfeld
Johnny Fu Che
John Charles Collins
Richard Joseph Czapski
Jill Marie Katic
David John Kramer
Joseph F. Labataille
Shelley Pflanzer Lecrone
Michael Richard Mahfet
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 Kedziorek
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 Laptes
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 Benge
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 Nikolich
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

These lists were current at the time of printing this commencement program.
Changes occuring too late to be included are reflected on the diplomas and transcripts of graduates.

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 Service 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. Greggory 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

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

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Ann V. Nicholson
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Ex officio
Gary D. Russi, *President of Oakland University*