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, l. 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 3, 1995

4:30 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*

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

Commencement Address
Roger E. Tetrault
President
General Dynamics Land Systems Division

Presentation of Honors

Presentation of Special Awards

Awarding of Degrees
Gary D. Russi, *Interim President*

Presentation of Candidates for the Ph.D. Degree

Presentation of Candidates for the M.S. Degree

Presentation of Candidates for the B.S.E. and B.S Degrees

Salutation
Loretta L. Mets, *Graduating Senior*

Alumni Welcome
James B. Getchell, *B.S., 1967*
Reliability Manager for Corvette, General Motors Corporation

Valediction
Gary D. Russi

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 1994

DOCTOR OF PHILOSOPHY

Systems Engineering

Robert Lipset

Dissertation:

The Unreliable Buffer: Its Role in the Analytic Model of the Production Line

MASTER OF SCIENCE

Computer Science and Engineering

Ethiraj Bhoopathi
Shawn Patrick Bright
Jagjit Dhillon
William Frank Eckenwiler
Steven D. Kuo
Frank C. Lee
Franklin Andrew Nagy
Pramod Kumar Satapathy
Daljeet S. Sodhi
Jon D. Stroven
Chuen Wah Tsoi
Yee-Lan Wong
Xu Wu

Electrical and Computer Engineering

Paula Harriet Alban
Noel Gutierrez Baisa
Xuandzung T. Do
Drake Charles Stalions
Yat-Chung Tang
Robert Brian Young

Mechanical Engineering

Daniel J. Asmus
Patrick R. Donnelly
Kevin E. Grenier
Nadine Renee Haupt-Mandich
Charles Joseph Musienko
James Shivley Netherland
Michael Phillips
Bradley R. Plymale
Ronald Richard Semel
Christopher John Waites

Systems Engineering

Xiaoyu Amy Jiang
Donald James Lewis
Alejandro Gabriel Nielsen

BACHELOR OF SCIENCE

Computer Science

Kenneth A. Faw
Rajani Jayakumar
Gregory Douglas Johnson
Thomas Francis Kluka
Jayanthi Krishna
Premalatha S. Mani
Heidi M. Smith
Michiko E. Taylor

Engineering Chemistry

Jill Marie Roselli
Jennifer Jean Smith

Engineering Physics

Scott Christopher Hunter

BACHELOR OF SCIENCE IN ENGINEERING

Computer Engineering

Amal A. Abbasi
Joseph A. Buck
Fang Liang
John Raymond Podolan

Electrical Engineering

Robert Vincent Bauer, Jr.
Alan Stuart Chereson
Olivia Tong-Lei Deng
Catherine Marie Jacobs

Gerald Edward Janusz
Binh Huu Nguyen
John Raymond Podolan
Scott M. Stephens
Jeffrey Russell Taus
Judy Lenore Willoughby

Mechanical Engineering
Michael S. Berry
Daniel Bryan Canning
Kimberly Dawn Hensley
Scott Brian Jacob
Michael Scott Johnson
Asifhusen Idrish Khatri
Kevin James Luxon
Scott Douglas Meier
William A. Nowicke
Mark J. Pfeiffer
Eileen Marie Rice
Lance J. Schwartz
John Walter Wierzbicki
John Michael Winter

Systems Engineering
Diane Chakrapani
Catherine Marie Jacobs
Gerald Edward Janusz
Christopher L. Van Dan Elzen

CANDIDATES FOR DEGREES
April 1995

DOCTOR OF PHILOSOPHY

Systems Engineering

Fang Chen

Dissertation:

Automation of Fringe Phase Extraction in Digital Shearography and its Applications to Strain and Vibration Measurement

MASTER OF SCIENCE

Computer Science and Engineering

Christopher Mark Everett
Dion John Hogan
Walter Freeman Hutchinson
Ananth Krishnan
Srikanth Sampath Kumar
Donald C. Montney
Sudha Nagaraj
Kim Louise Pfeifle
Dianna K. Rowland
Jingwen Su
Stephen Richard Vance
Paul Michael Walling

Electrical and Computer Engineering

Alfred Freeman Adams II
Michael J. Campbell
JoAnne Louise Casey-Roney
Peter John Daniels
Steve Kalman Dobos
Donald William Grimaudo
William Parrish Job
Rezina Sultana Nabi
Syed Ashabun Nabi
Michael Francis O'Connor
Maile Pham
Jacqueline M. Stanyer
Kathryn Ann Wolfe
Kurt William Zaiser

Mechanical Engineering

Erika Jane Boss
Joshua Benjamin Browne
Troy Joseph Davis
Steven Paul Dobrot
Matthew Thomas Duda
Eric Stephen Geib
Paul R. Goodes
Sandra J. Ham
Pauline Margaret Klee
Stephen M. Leitner
Kevin William Plymale
Juan Miguel Rodriguez
Lupco Savich
Brad M. Schneemann
Nicole Marie Waters

Systems Engineering

John M. Borowski
Frank J. Garza
Jennifer Ann Head
Thomas Howard Hunt
Lakshmana Swamy Naraharisetti
Liang Shi
Charles Frank Slabe

BACHELOR OF SCIENCE

Computer Science

Kevin T. Bentley
Eric M. Carr
Supraja Chikyala
William M. Donovan III
Thomas Alfred Eller
Anupma Kochhar
Steven Dwight Losey
Bruce Allan McCaffrey
John Arthur Petrykowski
Dimitrios Nikolaos Prantzalos
Fryderyk Sztajer
Sue-Ting Wang

Engineering Chemistry
Melanie I. Bronson
Joseph Sam D'Angelo
Jennifer Sue McEachin

BACHELOR OF SCIENCE IN ENGINEERING

Computer Engineering
Atheel Sami Alkarawi
James C. Barnes
Gregory Scott Crain
William M. Donovan III
Benjamin Arron Marchese
Loretta Lynne Mets
Michelle Lynn Rachuk
Md. Mashiur Rahman

Electrical Engineering
Atheel Sami Alkarawi
Arvin Baalu
Gregory Scott Crain
George Arthur Daniels
Victor Claude Evjen
Keith M. Johnson
Adnan Daher Kaafarani
Andrew John Kresmery
Ethan James Lee
Mark Alan Lucey
Kenneth Raymond Marcath
Thomas James McGraw
Loretta Lynne Mets
Linda Carol Raffler
Christina Marie Schulte
Kelly Lynn Willard
Toua Xiong
John G. Zeabari

Mechanical Engineering
Jeffrey Francis Centala
Mark A. Cuyler
John J. Gentile
Randal J. Griffith
Corey Paul Homer
Wa Shing Kan
Nicholas Michael Karloff
Mechele Ann Kaufman
Katherine Marion Keefer
Michael Thomas Krawczyk
Shawn Matthew LeBresh
Loren Carl Macklem
Anthony James Markel
Neil Raymond Miller
CaTina Monique Mitchell
Thomas Robert Oery
Jason Andrew Ryska
Michael Patrick Sheehy
Gregory Richard Smith
Kenneth George Thomas, Jr.
Erik Roy Waldron
Robin L. Young

Systems Engineering
Toni Elizabeth Chrzan
John H. Marcoux II
Mark Louis Schultz
Zhong Hua Yu

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 1994

UNIVERSITY HONORS

Summa Cum Laude
Heidi M. Smith

Magna Cum Laude
Amal A. Abbasi
Kenneth A. Faw
Scott Douglas Meier

Cum Laude
William A. Nowicke
Lance J. Schwartz
John Walter Wierzbicki

DEPARTMENTAL HONORS

Computer Engineering
Amal A. Abbasi

Computer Science
Kenneth A. Faw
Thomas Francis Kluka
Heidi M. Smith

Electrical Engineering
Gerald Edward Janusz

Mechanical Engineering
Kimberly Dawn Hensley
Scott Douglas Meier
William A. Nowicke
Lance J. Schwartz
John Walter Wierzbicki

Systems Engineering
Gerald Edward Janusz
Christopher L. Van Dan Elzen

HONORS AWARDED
April 1995

UNIVERSITY HONORS

Magna Cum Laude

Wa Shing Kan
Loren Carl Macklem
Anthony James Markel
Loretta Lynne Mets
Christina Marie Schulte

Cum Laude

James C. Barnes
Katherine Marion Keefer
Kenneth Raymond Marcath

DEPARTMENTAL HONORS

Mechanical Engineering

Mechele Ann Kaufman
Wa Shing Kan
Katherine Marion Keefer
Loren Carl Macklem
Anthony James Markel
Jason Andrew Ryska

Computer Engineering

James C. Barnes
Loretta Lynne Mets

Electrical Engineering

Keith M. Johnson
Andrew John Kresmery
Kenneth Raymond Marcath
Loretta Lynne Mets
Christina Marie Schulte

Computer Science

Steven Dwight Losey

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

HONORS COLLEGE

The Honors College has been established by the faculty of the College of Arts and Sciences for highly motivated students who wish an unusually challenging undergraduate education. It provides a specially designed general education and additional requirements in conjunction with a departmental major in the College of Arts and Sciences or in one of the professional schools.

The graduates listed below have completed programs in both Honors College and the School of Engineering and Computer Science and are identified by a white cord worn over academic regalia.

APRIL 1995

James C. Barnes
Jennifer Sue McEachin

UNIVERSITY AWARDS

HUMAN RELATIONS AWARD

The Human Relations Award recognizes outstanding work and dedication toward the improvement of human relations on the university campus. The recipient of the 1995 Human Relations Award is:

CaTina Monique Mitchell

SPECIAL AWARDS

SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

Award for 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.

Loretta Lynne Mets

Award for 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.

Anthony James Markel

Award for Service

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.

Jason Andrew Ryska

Award for 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.

Christopher L. Van Dan Elzen

BOARD OF VISITORS

William G. Agnew, Ph.D.
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GTE Products Corporation

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Chrysler Corporation

Herbert H. Dobbs, Ph.D.
Consultant

Lamont Eltinge, Ph.D.
Consultant

Robert W. Hildebrand
Rockwell International Auto

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

Sidney D. Jeffe
Schlegel Corporation

William L. Kath
Ford Motor Company

Ronald P. Knockeart
Siemens Automotive

Rober T. Lentz, Ph.D.
General Dynamics Services Company

Ronald L. McIntyre
Detroit Edison

Kenneth Oscar, Ph.D.
U.S. Army TACOM

James Sutton
SSOE, 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

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David Handleman
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Ex officio
Gary D. Russi, *Interim President of Oakland University*