
HONORABLE
MENTION
ELTON
HILLS
SCHOOL
SCIENCE
FAIR


ROCHESTER
PUBLIC
SCHOOLS
SCIENCE
FAIR
AWARD

CALIFORNIA INSTITUTE OF TECHNOLOGY

PASADENA, CALIFORNIA 91125

OFFICE OF THE REGISTRAR

July 22, 1980

Dear Mr. :

On behalf of the Undergraduate Academic Standards and Honors Committee, I am happy to inform you that you have been awarded "Honor Standing" at the Institute in recognition of your scholastic achievement during the year 1979-80. This distinction is granted each year to a limited number of students whose academic performance has been outstanding. This award will be recorded on your Permanent Record Card.

The Committee, representing the Faculty, congratulates you for your achievements during the past year, and expresses its hopes for the continued successful development of your professional career. Your outstanding academic performance should be viewed not only as a source of personal satisfaction to you, but also as a real and valued contribution to one of the most basic goals of the Institute.

With best wishes for continued success.

Sincerely,

Richard Dean

Richard Dean, Chairman
Undergraduate Academic Standards
and Honors Committee

RD:sm

CALIFORNIA INSTITUTE OF TECHNOLOGY

PASADENA, CALIFORNIA 91125

DIVISION OF ENGINEERING
AND APPLIED SCIENCE 104-44

May 22, 1981

Dear Mr. :

On behalf of the Division of Engineering and Applied Science, it gives me great pleasure to tell you that you have been selected by our Awards Committee to receive the distinguished Henry Ford II Scholar Award. This award was established in 1978 under an endowment provided by the Ford Motor Company Fund, a nonprofit organization supported primarily by contributions from the Ford Motor Company. Each year the Henry Ford II Scholar Award is awarded to the student with the best academic record.

We plan to have an awards luncheon here at Caltech to present the prize, which carries with it a cash award of $5,000.00, to you. We have selected Monday, June 8, as the date for this luncheon. Please let us know immediately if this date is convenient for you, and provide us with a biographical sketch of yourself sometime during the next week.

Congratulations, William. I look forward to meeting you.

Sincerely,

Roy W. Gould

Roy W. Gould, Chairman
Division of Engineering
and Applied Science

RWG:dr

PAGE TWO

UNDERGRADUATE RECORD

78134

STUDENT NO. | STUDENT NAME | PARENT OR GUARDIAN | ADDRESS PARENT OR GUARDIAN

Dept.	Course Number	DESCRIPTIVE TITLE	Units Attempted	Units Earned	Grade	Credits
	78134	2ND TERM 1980-81	UA	UE	G	CR
AMA	95B	INTRO METHODS APP MATH	12	12	A	48
AMA	153B	STOCHASTIC PROCESSES	9	9	P	
BEM	110	PERSONNEL PROBS OF MGMNT	9	9	A-	33
AMA	98B	ORDINARY DIFF EQUATIONS	9	9	A	36
CS	286	COMPUTER ARCHITECTURE	12	12	A	48
** CUM UE		384 CR 805 GPA 4.1	51	51		165
	78134	3RD TERM 1980-81	UA	UE	G	CR
AMA	95C	INTRO METHODS APP MATH	12	12	A-	44
CS	139	MULTIPROGRAM/RESRCE SHR	12	12	A	48
EE	60	COMMUNICATION SYSTEM FUN	9	9	A-	33
PSY	12	ABNORMAL PSYCHOLOGY	9	9	A-	33
** CUM UE		426 CR 963 GPA 4.0	42	42		158
	78134	1ST TERM 1981-82	UA	UE	G	CR
MA	112A	STATISTICS	9	9	A	36
PS	135	POLIT GEOG DEVEL COUNTR	9	9	A+	39
CS	270A	COMPUTER AIDED DESIGN	9	9	A	36
EE	163A	INTRO COMMUNICATION THRY	9	9	A	36
AMA	181A	MATH PROG/GAME THEORY	9	9	A	36
** CUM UE		471 CR 1146 GPA 4.0	45	45		183
	78134	2ND TERM 1981-82	UA	UE	G	CR
CS	270B	COMPUTER AIDED DESIGN	9	9	A	36
AMA	181B	MATH PROG / GAME THEORY	9	9	A+	39
MA	112B	STATISTICS	9	9	A	36
EE	163B	INTRO COMMUNICATION THRY	9	9	A	36
E	10	TECHNICAL PRESENTATIONS	2	2	A	8
PL	17A	INTRO PHILOSOPHY	9	9	A	36
** CUM UE		516 CR 1337 GPA 4.1	47	47		191

Dept	Course Number	DESCRIPTIVE TITLE	Units Attempted	Units Earned	Grade	Credits
	78134	3RD TERM 1981-82	UA	UE	G	CR
CS	270C	COMPUTER AIDED DESIGN	9	9	A	36
EE	163C	INTRO COMMUNICATION THRY	9	9	A	36
MA	112C	STATISTICS	9	9	A	36
*CS	121	MICROPROCESSOR LAB	9	9	B	27
H	156	MIST MOD SCIENCE	9	9	C+	21
** CUM UE		563 CR 1493 GPA 4.0	45	45		156

SECONDARY SCHOOL

NAME: John Marshall H.S

ADDRESS: Rochester, MN

GRADUATION DATE: 6/78

MEMORANDA

2-20-79: Excused from taking further Freshman Humanities courses.
7-22-80: Awarded Honor Standing for 1979-80 Academic Year.
2-11-81: Petition to be excused from 9 units of Engineering Lab Approved by the Curriculum Committee.
6-12-81: Awarded Henry Ford II Scholar Award.
Awarded Caltech Prize Scholarship 1981-82 Academic Year.
Awarded Honor Standing for the 1980-81 Academic Year.

Option Adviser: C. B. Ray
Freshman Adviser: B. C. Barish

TRANSCRIPTS ISSUED:
DEC 9 1981
AUG 16 1982
JUN 20 1983

INVALID WITHOUT PAGE ONE. TRANSCRIPT OFFICIAL ONLY WHEN SEAL IS AFFIXED. STUDENT ENTITLED TO HONORABLE DISMISSAL UNLESS OTHERWISE NOTED.

DATE ISSUED | REGISTRAR

Registrar

PAGE ONE

UNDERGRADUATE RECORD

CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA, CALIFORNIA

78134		Sept. 25, 1978	B. S. with Honor	June 11, 1982
STUDENT NO.	STUDENT NAME	MATRICULATION DATE	DEGREE GRANTED	DATE

Rochester, Minnesota 1-4-61 — PLACE OF BIRTH, DATE OF BIRTH

Eng&ApSc — MAJOR SUBJECT OPTION

HOME ADDRESS AT ADMISSION

Dept.	Course Number	DESCRIPTIVE TITLE	Units Attempted	Units Earned	Grade	Credits
	78134	1ST TERM 1978-79	UA	UE	G	CR
MA	1A	FRESHMAN MATHEMATICS	9	9	P	
PH	1A	KINEMATIC/PARTICLE MECH	9	9	P	
CH	1A	GEN & QUANTITATIVE CHEM	6	6	P	
CH	3A	EXPER CHEMICAL SCIENCE	6	6	P	
H	1A	INTRODUCTION TO EUROPE	9	9	P	
APH	3	INTRO SOLID-STATE ELECTR	6	6	P	
PE	1A	PHYSICAL EDUCATION	3	3	P	
** CUM UE		48 CR 0	48	48		
	78134	2ND TERM 1978-79	UA	UE	G	CR
H	1B	INTRODUCTION TO EUROPE	9	9	P	
CH	1B	GEN & QUANTITATIVE CHEM	6	6	P	
APH	9	SOLID-STATE ELECTRON LAB	6	6	P	
*CS	4	INTRO DIGITAL ELECT	6	6	P	
PH	1B	KINEMATIC/PARTICLE MECH	9	9	P	
MA	1B	FRESHMAN MATHEMATICS	9	9	P	
** CUM UE		93 CR 0	45	45		
	78134	3RD TERM 1978-79	UA	UE	G	CR
PH	1C	KINEMATIC/PARTICLE MECH	9	9	P	
MA	1C	FRESHMAN MATHEMATICS	9	9	P	
CH	1C	GEN & QUANTITATIVE CHEM	6	6	P	
EE	5	INTRO LINEAR ELECTRONICS	6	6	P	
*CS	11	DIGITAL ELECTRONICS LAB	6	6	P	
CS	10	INTRO USE OF COMPUTERS	6	6	P	
PE	1C	PHYSICAL EDUCATION	3	3	P	
H	1C	INTRODUCTION TO EUROPE	9	9	P	
** CUM UE		147 CR 0	54	54		

Dept.	Course Number	DESCRIPTIVE TITLE	Units Attempted	Units Earned	Grade	Credits
	78134	1ST TERM 1979-80	UA	UE	G	CR
MA	2A	SOPHOMORE MATHEMATICS	9	9	A	36
PH	2A	ELECTMAGTISM QUANT MECH	9	9	A+	39
PE	2A	PHYSICAL EDUCATION	3	3	P	
CS	112	PRIN DIGITAL INFO PROC	9	9	A	36
*EC	11A	SOCIAL PRINCIPLES/PROB	9	9	A	36
EE	14A	INTRO ELECTRONIC ENGR	9	9	A+	39
** CUM UE		195 CR 186 GPA 4.1	48	48		186
	78134	2ND TERM 1979-80	UA	UE	G	CR
MA	2B	SOPHOMORE MATHEMATICS	9	9	A+	39
PH	2B	ELECTMAGTISM QUANT MECH	9	9	A+	39
PE	2B	PHYSICAL EDUCATION	3	3	P	
CS	114	MICRO PROCESS SYSTEMS	9	9	A	36
*EC	11B	SOCIAL PRINCIPLES/PROB	9	9	A	36
EE	14B	INTRO ELECTRONIC ENGR	9	9	A	36
** CUM UE		243 CR 372 GPA 4.1	48	48		186
	78134	3RD TERM 1979-80	UA	UE	G	CR
PH	2C	ELECTMAGTISM QUANT MECH	9	9	A+	39
EE	14C	INTRO ELECTRONIC ENGR	9	9	A+	39
EC	15	MACROECON:PRINS/PROBS	9	9	P	
MA	2C	SOPHOMORE MATHEMATICS	9	9	A-	33
CS	116	TEC & APPL OF COMPUT	6	6	A	24
PE	2C	PHYSICAL EDUCATION	3	3	P	
** CUM UE		288 CR 507 GPA 4.1	45	45		135
	78134	1ST TERM 1980-81	UA	UE	G	CR
AMA	95A	INTRO METHODS APP MATH	12	12	A+	52
CS	137	SYSTEMATIC PROGRAMMING	12	12	A	48
BEM	100A	BUSINESS ECON & MANAG.	9	9	A-	33
AMA	153A	STOCHASTIC PROCESSES	9	9	P	
PE	3A	PHYSICAL EDUCATION	3	3	P	
** CUM UE		333 CR 640 GPA 4.1	45	45		133

EXPLANATION

Fifteen preparatory units are required for entrance. Approximately 600 college units and a grade point average of 1.90 are required for graduation.

The number of units given each term for any course is the total number of hours per week required in that course, including class and laboratory work and the estimated time for preparation.

California Institute units may be reduced to semester hours by multiplying the Institute units by the fraction 2/9. Thus a 9 unit course taken three terms of an academic year would total 27 Institute units or 6 semester hours. If the course were taken one term only, it would be equivalent to 2 semester hours.

GRADING SYSTEM

Grade		Credits Per Unit
A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Poor	1
E	Condition	0
F	Failed	0
P	Passed	*
I	Incomplete	*
W	Withdrew	*
CR	Advanced Standing Credit	*
+	Grade	+⅓
-	Grade	−⅓

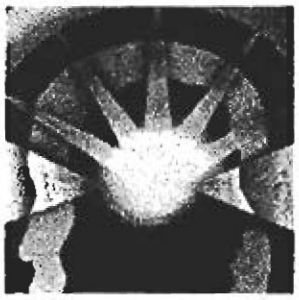
* Not included in computing G.P.A.

Physical Education units not included in computing G.P.A.

Synopsys, Inc.
700 East Middlefield Road
Mountain View, CA 94043-4033
Tel: 650-962-5000
Fax: 650-965-8637

SYNOPSYS®

December 10, 1998



Principal Engineer, Research & Development
Synopsys, Inc.

Dear :

Congratulations on being chosen by your colleagues and managers to receive a Synopsys Excellence Award. You are among a small group of exceptional people who exemplify the Synopsys core values of Integrity, Execution Excellence, and Leadership, which will drive all our decisions and actions over the next decade.

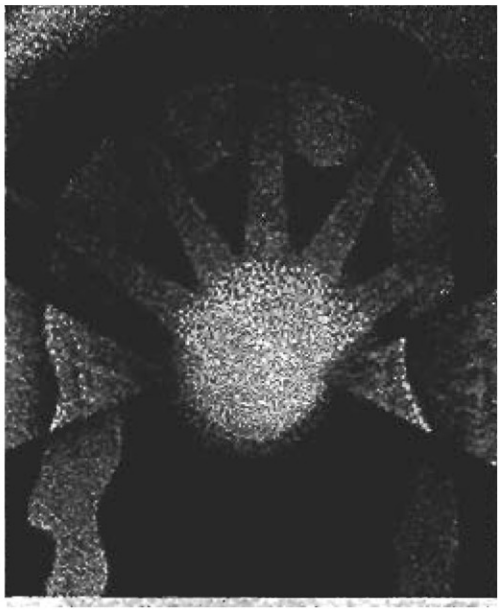
I'd like to express my appreciation and gratitude for your commitment to excellence. Truly extraordinary people are those who are undeterred by obstacles, undaunted by ambitious goals, and unintimidated by long hours and intense demands on their talents and energy. You have been recognized not only for your ability to achieve results, but also for your drive to go beyond what is expected.

Along with your commemorative crystal engraved award, you will receive a $2,500 cash award (subject to taxable payroll deductions) and 1,000 shares of Synopsys stock options.

On behalf of the executive team, I thank you for your outstanding contributions to the success of the company.

Sincerely,

Aart de Geus
Chairman and CEO



Congratulations Excellence Award Winner!

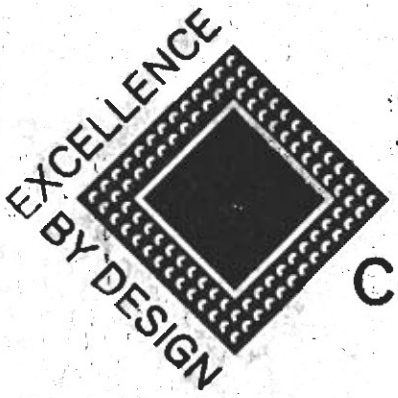
Principal Engineer, Research & Development

You will receive a Stock Option Grant of
1,000 Shares of Synopsys Stock.

The grant will occur and the price will be set
during the week of December 14.

You can look forward to receiving your
formal Stock Option Agreement
in the near future

December 1998



Synopsys
Engineering
Conference 2000

Special Recognition Award

Presented to

In recognition of excellent performance and outstanding contribution to Synopsys Engineering

Junior Engineering Technical Society

in cooperation with

Science Service

presents this certificate

to

for having submitted the 1st PLACE exhibit in the field of

Engineering

at

Southeastern Minnesota Regional Science Fair

April 2, 1974
DATE

David Reyes-Guerra
EXECUTIVE DIRECTOR—JETS

E G Sherburne
DIRECTOR, SCIENCE SERVICE

Roy B Cowin
EXECUTIVE MANAGER—JETS
345 E. 47TH STREET, NEW YORK, N.Y. 10017

THE SUPERHETERODYNE RECEIVER

A superheterodyne radio consists of four main parts, an oscillator, a mixer, an intermediate frequency amplifier, and a detector. The signal picked up by the antenna and the oscillator signal are fed into the mixer, where the oscillator and signal frequencies are mixed. The output of the mixer consists not only of the signal and oscillator frequencies, but frequencies of the sum and difference of these frequencies.

An intermediate frequency amplifier strengthens signals of a certain frequency (conventionally 455 kc) and eliminates all others. The output of the mixer of a superheterodyne receiver is fed into the I.F. (intermediate frequency) amplifier. If any one of the outputs of the mixer happen to have a frequency of 455 kc, it is amplified by the I.F. amplifier and fed into the detector.

The detector is usually a diode, which changes the I.F. signal into D.C. The strength of this D.C. depends on the strength of the I.F. signal; both change with the strength of the original signal. The varying D.C. can be used to run an earphone or an audio amplifier.

The radio in this project has a 455 kc I.F. amplifier that has too much regeneration. The I.F. amplifier oscillates weakly. This oscillation mixes with the carrier frequency of the I.F. signal at the detector. The output contains not only the program material, but also a very annoying squeal.

This project is built on two printed circuit boards and contains six transistors.

MINNESOTA ACADEMY OF SCIENCE
3100 38th AVENUE SOUTH • MINNEAPOLIS, MINNESOTA 55406
PHONE 721-3391 • AREA CODE 612

April 17, 1975

Congratulations on your showing at the 1975 Annual Minnesota State Science Fair and Research Paper Program.

You are the recipient of the Northern States Power award

award sponsored by Northern States Power Co.

This award consists of a trip to NSP and further competition

Enclosed is a card that you are requested to complete. Return this card to the Administration room so that we will have a complete record for follow-up with additional information as may be required.

Thank you for your effort and again may we congratulate you.

Sincerely,

L. Monty Carlson
Awards Chairman

LMC:cp

MINNESOTA ACADEMY OF SCIENCE
3100 38th AVENUE SOUTH • MINNEAPOLIS, MINNESOTA 55406
PHONE 721-3391 • AREA CODE 612

April 17, 1975

Congratulations on your showing at the 1975 Annual Minnesota State Science Fair and Research Paper Program.

You are the recipient of the 1st place award

award sponsored by Minn. Acad. of Science

This award consists of certificate, ribbon, gold-medal

Enclosed is a card that you are requested to complete. Return this card to the Administration room so that we will have a complete record for follow-up with additional information as may be required.

Thank you for your effort and again may we congratulate you.

Sincerely,

L. Monty Carlson
Awards Chairman

LMC:cp

AN AUDIO AMPLIFIER

NAME:
HOME ADDRESS:
SCHOOL:

This project is an audio amplifier. It is able to make sounds louder.

The heart of this audio amplifier is the transistor. A transistor is capable of making electrical vibrations stronger. This amplifier has three transistors.

The microphone changes sound vibrations into electrical vibrations. These electrical vibrations are fed into the first transistor. The first transistor strengthens this electrical vibration. These strengthened vibrations are fed into another transistor, which makes them stronger still. Finally, these vibrations are fed into the last transistor. This transistor makes the vibrations strong enough to drive a speaker. These vibrations are fed through a transformer to a speaker, which changes them into sound.

For details, see report book.