VICTO537

Submitted: 11-19-2007, 23:29:05

MIT Application for Graduate Admission 2008

Plea	se read instructions carefully befor	e you complete this form. Please p	rint clearly or type.			
1	Proposed date of entrance:	☐ February ☐ June	X September	Year: 2008		
2	Department Health Science	ences and Technology	Area of researc	h or interdisciplinar	y program Medical Enginee	ring / Medical Physics
3	Initial degree objective at M	_{IIT} _Ph.D.	Fin	al degree objective (·	go 000k.
4	Are you applying to more t	han one department? 🗌 Yo	es X No If yo	es, indicate departme	ents	
5	Full legal name ast/family/surnar	me	first		6 Date of bi	rth month day year
	Former name (if any)					, ,
7	Female Male X					
8	Ethnicity (optional): US citizens and permanent residents only	☐ African-American/Black ☐ Afro-Caribbean ☐ African parentage 【 Asian-American	☐ Chicar ☐ Puerto	sian/White 10 or Mexican-Amer 1 Rican Hispanic	□ Native American □ Other □ Please descri	CAN Tribal affiliation
9	Reply addressstr	eet		city		
	state or province			country	zip or p	ostal code
10	Permanent addressnumber	street		city		
	state or pr	ovince		country	zip or p	postal code
11	Daytime phone	area code/city code number	I	Evening phone	y code area code/city code nur	mber
12	Fax numbercountry code	area code/city code number	E	mail address		
13	City, state and country of b	irth	Citizen of		US Social Security #	t (if any)
	If a foreign citizen in the U	S, give date of entry	day year	Гуре of visa	I-20 ID Nu	mber
	If an Exchange Visitor (J),	give program number and na	,			
	Permanent resident of	If a j	permanent resident (immigrant) of the U	S, give alien registration nur	mber
14	Have you previously appl	ied for admission to MIT?	☐ Yes ☐ No	MIT IDif assigned one	as a former student	
		eshman 🗌 Transfer 🔲 S				ent:
15	List all colleges and univers	ities attended, major field, da	tes of attendance and	d name of degrees r	eceived or expected (list mos	t recent first):
	UC Berkeley College/University	Berkeley, CA, Unite States of America	d Mechanical ™engineering	08-2004 05-2 Dates attended	OO8 SB Actual name of degree/diploma	05-2008 Date degree awarded/expected
	College/University	Location	Major field	Dates attended	Actual name of degree/diploma	Date degree awarded/expected
	College/University	Location	Major field	Dates attended	Actual name of degree/diploma	Date degree awarded/expected
16	Other graduate schools to v	which you are applying				
For	department use:	○ Cond. Admitted○ Cond. AdmittedDegreeDegree		Ву Ву	Date	- ○ Not approved - ○ Not approved

MI	Γ Application for Graduate Admission (continued from front	*)		
17	Entrance tests: GRE: Date taken or to be taken: 09-2007	Scores: verbal 590	quantitative790	analytic 4.5
	GRE Subject: Date taken or to be taken:	Scores:	S	Subject:
	GMAT: Date taken or to be taken:	Scores: —		
	TOEFL: Date taken or to be taken:	Scores:		
18	List language of instruction in: primary school; English		; secondary school <u>Eng</u>	ılish
	university English ; graduate school _	1	Native language if other than l	English:
19	Names of three persons to whom you have given evaluation	forms. (Request those persons to re	turn the completed forms to you in time i	to meet the appropriate deadline.)
	Prof. Andrew Szeri	Professor title	UC Berkele	÷ y
	Prof. David Auslander	Professor	UC Berkele	
	Torsten Doll	Graduate Student	Technical L	University Darmstadt
21	Please give the names, years of graduation, department affilia Your honors, prizes, or major publications: \$2000 scholarship to research at TU Darmstace			
22	Your extracurricular activities and accomplishments: former Industrial Liaison of Pi Tau Sigma [Meccurrent Outreach Advisor of Pi Tau Sigma			
23	Your teaching or professional experience including summer a	and term-time work. Give na	me of employer, dates, and na	ture of work:
	Cal Recreational Sports Facility; 01/2005-05/20	007; Process applicat	ons	
	Target Corporation; 07/2003-08/2004; Custom	•		
24	Other experience, including military, volunteer work, travel.			
Inter	national students (non-immigrant visa holders) please complete the	following:		
	25 Your marital status: ☐ Single ☐ Married Nu	_		
	If single, do you intend to marry before you come here?		r spouse come with you?	Yes 🗆 No
26	Signature:		Date: 11-19	-2007

Name: last/family

middle

MIT Department to which you are applying

as a candidate for degree of

Record of Courses Taken in Preparation for Graduate Study

Please carefully read the instructions below before you complete this form.

Based on your transcript(s), please complete the following summary of your college and university classes.

General instructions:

- Important: some departments do not require this form; other
 departments require only some of the fields to be completed—check
 the requirements for the department to which you are applying before
 completing this form. See pages 4–16 of this booklet.
- This form is not required for courses taken at MIT (except for the Department of Physics).
- If the department to which you are applying requires this form, a transcript will not be accepted as a substitute for this information.
- If your university system does not fit with the categories below—for example, if your courses do not have numbers or you did not receive course grades—leave those fields blank.
- Do not try to convert your university grading scale or GPA to MIT's scale. Indicate the grades/GPA as granted by your school and give us a brief explanation of your school's grading system.
- If the space provided is not sufficient, you may attach additional sheets.

Why we ask you to complete this form:

- We see transcripts from thousands of schools from all over the world.
 It is extremely helpful for us to review applicants' coursework and grades in a standard format.
- Transcripts show courses by semester or year. However, the best way
 for us to evaluate your preparation is to see your courses grouped by
 subject area, with the most relevant courses at the top.
- Transcripts do not list textbooks used; many departments find that information especially helpful.

Grading System:

Please describe the grading system(s) used at all colleges and universities you have attended. Explain the specific meaning of any numeric values, letter grades, and rankings.

Cumulative GPA as listed on transcript (if available)_

Please list by		YOU ARE APPLYING ten that are most relevant to the graduate program to which e, group all math courses together and group all science courses	Year in which course was taken	Official course grade (if applicable)
(if applicable) Course name	Principal textbook used (author and title)	Yeë	Q E
PHYS 7A	Mechanics and Wave Motion	Physics for Scientists and Engineers by Douglas C. Giancoli	Spr	B+
PHYS 7B	Heat, Electricity, and Magnetism	Physics for Scientists and Engineers by Douglas C. Giancoli	Sum	Α
PHYS 7C	EM, Optics, Relativity, and Quantum Physics	Modern Physics by Paul A. Tipler	Spr	Α
MATH 1A	Calculus I	Calculus by James Stewart	Fall	A-
MATH 1B	Calculus II	Calculus by James Stewart	Spr	Α
MATH 53	Multivariable Calculus	Multivariable Calculus by James Stewart	Fall	B+
MATH 54	Linear Algebra and Differential Equations	Elementary Linear Algebra by Richard Hill	Spr	В
ME 104	Mechanics II	Dynamics by Benson Tongue	Fall	Α
ENGIN 77	Intro to Computer Programming	MATLAB Programming	Spr	B-
EE 100	Electronic Techniques for Engineering	Electric Circuits by James W. Nilsson	Sum	Α
CHEM 1A	General Chemistry	Chemical Principles by Steven S. Zumdahl	Fall	B+
NE 101	Nuclear Reactions and Radiation	Introductory Nuclear Physics by Kenneth S. Krane	Fall	TBD
NE 162	Radiation Biophysics and Dosimetry	TBD	Spr	TBD

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TOTAL: Y

814

GRIPTS CD

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Office of the Registrar University of California Berkeley, California 94720-5404

History

The University of California was created by an Act of the State Legislature in 1868, and classes have been given at Berkelev since 1873.

Units of Credit

Until September 1966, credits were recorded as semester units (hours). From September 1966 through summer 1983 credits were recorded as quarter units (hours). Beginning with the fall term, 1983, credits are recorded as semester units (hours). Quarter system requires 180 units for bachelor's degree. Semester system, 120.

Advanced Standing

Transfer Credit

Only credit that is accepted by the University is indicated on the transcripts of Berkeley students. Individual courses are

CLEP - Advanced Placement Credit

Examinations and credits accepted are indicated on the transcript in the same manner as transfer credit.

Course Numbering System

1 - 99 - Lower division courses

100 - 199 - Upper division courses 200 - 299 - Graduate courses

300 - 499 - Professional courses for teachers or prospective teachers

600 - 602 - Special Study

Grades of Scholarship

The work of all students on the Berkeley campus is reported in terms of the following grades:

- Excellent

- Good - Fair

- Barely Passed - Failure

Passed at a minimum level of C-

NP - Not Passed

- Satisfactory or passed at a minimum level of B-- Unsatisfactory

Work incomplete, due to circumstances beyond the student's control, but of passing quality Work in progress; final grade to be assigned upon

completion of entire course sequence

orary administrative grade; not included in grade point computation

The grades A, B, C, and D may be modified by plus (+) or minus (-) suffixes.

Grade Points

Grade points per unit are assigned as follows: A=4, B=3, C=2, D=1, and F=none. When attached to the grades A, B, C, and D, plus (+) grades carry three-tenths of a grade point more per unit, and minus (-) grades carry three-tenths of a grade point less per unit than unsuffixed grades, except for A+, which carries 4.0 grade points per unit as does

Courses graded P, NP, S, U, I, IP, or NR are not used in computing the grade point average.

Scholastic Standing

Good Standing

Undergraduate: C average (non-negative balance)
Graduate: B average or better on all work attempted at any UC campus after a bachelor's degree.

Academic Probation

Undergraduate students are placed on academic probation if at the end of any term their cumulative grade point average is less than 2.0 (C average) computed on the total of all courses undertaken in the University. However, in the Colleges of Chemistry and Engineering, probation is determined on a term basis.

Credit Codes

Credit codes may determine the calculation of credit or annotate a course entry as follows:

Current Records System

Fall 1975 to Present

Note: An "I" assigned as of Fall 1973 to present is not included in grade point computation.

Pass/Fail Courses

PF - Course offered only on Pass/Not Pass basis P/NP - Undergraduate grading option Passed/Not Passed SF - Graduate grading option Satisfactory/Unsatisfactory SU - Graduate courses offered only on Satisfactory/ Unsatisfactory basis

PE P/NP SE SU courses are not included in units ATTM (attempted) or units PSSD (passed), but are included in CREDITS COMPLETED.

Seauence Courses

T1, T2, T3 - Sequence course in progress TX - Sequence course with variable terms, in progress

TP - Sequence course in progress, taken P/NI

TS - Sequence course in progress, taken SF 2T, 3T, TT, PT, ST - Final term of sequence course with total units and final grade

Resolution of Incomplete Grades

I replaced with letter grade

I replaced with a P or NP for an undergraduate

I replaced with S or U for a graduate
I replaced with a grade for final term of sequence

I to be retained permanently by an undergraduate

Q1 - I lapsed to F PI - I lapsed to NP

IP grade lapsed to I

Replacement of original grade; no credit calculation

Repeated Courses

The G-Series code appearing after a repeated course entry controls credit and grade points earned.

Original D grade; units attempted, units

passed and grade points counted Original F grade; units attempted counted

Original NP, I, or NR; no credit calculation
D grade repeated; additional grade points calculated
D+ grade repeated; additional grade points calculated

D- grade repeated; additional grade points calculated F grade repeated; units passed and grade points calculated

NP grade repeated; passed/not passed units calculated

NP grade repeated for a letter grade; units attempted, units passed, grade points calculated; incomplete grade repeated with permission P grade repeated; no credit allowed

Figrate repeated, no credit allowed C- or better grade repeated; no credit allowed I (lapsed IP) grade repeated; units attempted, units passed, grade points calculated 2nd repeat of an F without permission; only

units passed calculated

I repeated without permission; units attempted, units passed, but no grade points calculated

Units attempted and grade points calculated; units passed not calculated

Miscellaneous

N1 - Grade corrected by instructor

K1 - Credit by examination, see memoranda

DR - Course dropped after eighth week of term

Prefixes

- Cross-listed

- Honors

- Reading & Composition

Previous Record Systems

Prior to Fall 1975

Note: An "I" assigned prior to Fall 1973 is included in grade point computation as an F grade.

Prior to Fall 1966, explanations are included on the transcripts:

Education Abroad Program

Course repeated Duplicate Matriculation Credit

I grade completion deferred without loss of grade points

I completed (replaced with grade) Allowed to take credit by examination Grade points for I grade allowed upon completion Grade changed by instructor

Course in progress (sequence course) I grade lapsed to F Course completed in Extension Division

Course dropped

Grade by special examination



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- Unsatisfactory Work incomplete, due to circumstances beyond the
- student's control, but of passing quality
- Work in progress; final grade to be assigned upon completion of entire course sequence
- Temporary administrative grade; not included in grade point computation

The grades A, B, C, and D may be modified by plus (+) or minus (-) suffixes

Grade Points

Grade points per unit are assigned as follows: A=4, B=3, C=2, D=1, and F=none. When attached to the grades A, B, C, and D, plus (+) grades carry three-tenths of a grade point more per unit, and minus (-) grades carry threetenths of a grade point less per unit than unsuffixed grades, except for A+, which carries 4.0 grade points per unit as does

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Good Standing

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Graduate: B average or better on all work attempted at any
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Sequence Courses

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- TX Sequence course with variable terms, in progress TP Sequence course in progress, taken P/NP
- TS Sequence course in progress, taken SF
- 2T, 3T, TT, PT, ST Final term of sequence course with total units and final grade

Resolution of Incomplete Grades

- I replaced with letter grade I replaced with a P or NP for an undergraduate PI -
- I replaced with S or U for a graduate I replaced with a grade for final term of sequence
- I to be retained permanently by an undergraduate
- Q1 Hapsed to F PI Hapsed to NP
- IP grade lapsed to I
- Replacement of original grade; no credit calculation

Repeated Courses

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- RD Original D grade; units attempted, units passed and grade points counted
- Original F grade; units attempted counted Original NP, I, or NR; no credit calculation
- D grade repeated; additional grade points calculated
- D+ grade repeated; additional grade points calculated D- grade repeated; additional grade points calculated F grade repeated; units passed and grade points
- calculated NP grade repeated; passed/not passed units
- NP grade repeated for a letter grade; units attempted, units passed, grade points calculated; incomplete grade repeated with permission
- GP P grade repeated; no credit allowed G5 C- or better grade repeated; no credit allowed I (lapsed IP) grade repeated; units attempted,
- units passed, grade points calculated 2nd repeat of an F without permission; only units passed calculated
- I repeated without permission; units attempted, units passed, but no grade points calculated
- Units attempted and grade points calculated; units passed not calculated

Miscellaneous

- N1 Grade corrected by instructor
- K1 Credit by examination, see memoranda DR Course dropped after eighth week of term

Prefixes

- C Cross-listed
- H Honors
- Summer course
- Reading & Composition

Previous Record Systems

Prior to Fall 1975

Note: An "I" assigned prior to Fall 1973 is included in grade point computation as an F grade.

Prior to Fall 1966, explanations are included on the transcripts:

- Education Abroad Program
- Course repeated Duplicate Matriculation Credit
- I grade completion deferred without loss of grade points I completed (replaced with grade)
- Allowed to take credit by examination Grade points for I grade allowed upon
- Grade changed by instructor Course in progress (sequence course)
- I grade lapsed to F
- Course completed in Extension Division Course dropped
- Grade by special examination



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HST PHD ADMISSIONS

MIT E25-518

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Statement of Objectives

Please read instructions carefully before you complete this form.

Please give your reasons for wishing to do graduate work in the field you have chosen. Prepare your statement of objectives and goals in whatever form clearly presents your views. Include as far as you can, your particular interests, be they experimental, theoretical, or issue-oriented, and show how your background and MIT's programs support these interests. The statement could be much like a proposal for graduate studies, in the more specific context of your professional objectives. You should set forth the issues and problems you wish to address. Explain your longer-term professional goals. The Admissions Committee will welcome any factors you wish to bring to its attention concerning your academic and work experience to date.

- Type or print using black ink.
- •Use reverse side if necessary or separate form.
- Keep a copy for your file. You may also wish to provide copies to your evaluators before they complete their forms.
- Return this form with the completed application to the appropriate MIT department (see pages 4–16).

This past summer I thought I was going to be living a dream. Not only was I doing research in my field of interest [controls] at a German university, but was also immersed in a culture that was curious and unfamiliar to me. While the lifestyle and splendors of Germany never failed to retain my interest, I soon found that my research was not so glamorous at all. I began to question the type of work I could do in controls and realized that I wanted to work with people and help them directly. It was then that I began to consider medical physics, a field where I could pursue my passion for math and physics while having the satisfaction of healing people and saving lives. I knew that reading about it on the internet would not be enough to convince myself that medical physics was my calling, so I decided to explore further by talking to experts in the field. As soon as I returned from Germany, I arranged meetings with medical physicists at the UCSF medical center. On my first visit, I spoke with Dr. Bruce Hasegawa and his colleagues about their medical imaging research and opportunities in a research-focused career. On a second visit, I talked with Dr. Lynn Verhey about his work as a clinically-focused medical physicist and was fortunate enough to see the Cyber Knife and Gamma Knife up close. These visits not only confirmed my interest in pursuing medical physics, but also earned me the possible opportunity to work in their lab next summer.

Despite not having the same curriculum as a physics major, my mechanical engineering background provides a solid foundation on which to begin studying medical physics and gives me an unique perspective in doing so. My curriculum focuses on the design and analysis of complex mechanical systems, which will be helpful in developing new therapy and imaging devices. Furthermore, my research in Germany has earned me valuable experience in computational modeling and gave me a taste of the hard work and dedication necessary to do graduate level research. In light of these rigors, I still embrace new research opportunities. I am currently researching oxidation of silicon carbide this semester, after which I am going to write an undergraduate thesis. To prepare myself directly for studying medical physics, I am taking "Nuclear Reactions and Radiation" this semester and plan to take "Radiation Biophysics and Dosimetry" during my final semester.

Based on my goals and experience, I believe that the PhD program in medical engineering and medical physics at MIT is ideal. During my first year of graduate study, I plan to learn as much as possible about radiation therapy and medical imaging before choosing a specialty. After completion of a PhD, I hope to earn accreditation by the American Board of Radiology and work at a hospital or a university medical center to provide clinical service while doing research and training the new generation of medical professionals

11-19-2007

gnature Dr.

Address in full

Use this space for additional information or comments, if needed.

Resume/CV for

OBJECTIVE

My objective is to enter a graduate program in medical physics.

EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY--Berkeley, CA

- o Bachelor of Science, Mechanical Engineering--expected May 2008
- o Cumulative GPA: 3.6/4.0
- o Relevant Coursework: Nuclear Reactions and Radiation, General Physics, Modern Physics, Electronic Techniques, Experimentation and Measurement, MATLAB Programming, Technical Communication

SKILLS

- o Proficient in MATLAB, LabVIEW, C, LMS Virtual Lab Acoustics, ANSYS, AutoCAD, SolidWorks, and Microsoft Office: Word, Excel, and PowerPoint.
- o Trained and certified in student machine shop to use mills, lathes, saws, and drills.
- o Conversant in Cantonese, Mandarin, and French.

ENGINEERING PROJECTS & EXPERIENCE

- o Honors Undergraduate Research, Berkeley Micromechanical Analysis and Design Group [September '07-Present]
- Test silicon carbide samples in high temperature and high oxygen concentration environments to study growth of film thickness caused by oxidation. Results and analysis will be compiled into final report upon completion. Advisor: Al Pisano, Professor and Chair of Mechanical Engineering
- o Research Internship. Technical University Darmstadt. Germany [Summer 2007]
- Awarded ~\$2000 scholarship from DAAD RISE Program to research on "Virtual Testing of Active Systems" in cooperation with PhD candidate Torsten Doll. Objective was to reduce radiated noise from plane structures with active damping using vibration sensors and actuators. Main work was in creating software interface that sends sound field calculations from Virtual Lab to MATLAB controller for greater active system reliability.
- o Software Design Project, Course: ME135 Design of Microprocessor-based Mechanical Systems [Spring 2007]
- Designed a program in C and LabVIEW that controls a robot arm with six axes to sort blocks based on color and size. Control software receives information from a self-built light intensity sensor [using photoelectric diodes] and a size detector [using a beam break] to choose the appropriate action.
- o Modeling & Simulation Project. Course: ME104 Dynamics [Fall 2006]
- Modeled the dynamics of a caber-toss to test for conditions of a successful toss. Primarily used ode45 equation solver in MATLAB to write simulation program.

ADDITIONAL EXPERIENCE

- o Cashier, CAL RECREATIONAL SPORTS FACILITY, Berkeley, CA [January '05-May '07]
- o Cashier/Customer Service Representative, TARGET CORPORATION, San Jose, CA [July '03-August '04]

ACTIVITIES & LEADERSHIP

- o Outreach Advisor, Pi Tau Sigma Mechanical Engineering Honor Society [September '07-Present]
- Organize outreach program for teaching pre-college age children about engineering using Lego Mindstorms.
- o Industrial Liaison, Pi Tau Sigma Mechanical Engineering Honor Society [January '07- May '07]
- Established network between industry and engineering students by creating resume books to pitch to companies and organizing info-sessions.
- o Member, Cal Dragon Boat Team [January '05-Present]

MIT Evaluation for Graduate Admission

Please read instructions carefully before you complete this for	m.	Depart	ment of	Tashnalassa
Part 1 To be completed by all applicants				
Please type or print using black ink. Important: In the upper right of this form, fill in the retu	rn address department name and	room number (as ind	licated on pages 4–1	6 of this booklet).
Name: Confidential				
Important: In the upper right of this form, fill in the return address department name and room number (as indicated on pages 4–16 of this booklet). Confidential				
Applying for admission in the department of Health S	Sciences and Technology			
c I I C Ph D	ć	, MEMD		
for the ultimate degree of Thib.	area of re	search_IVILIVII		
for the term beginning in September 2008		email C	onfidential	
with both the letter and the spirit of this law, while still a				
Applicant's signature:				date
Part 2 To be completed by evaluator				
An application for admission to MIT requires evaluations fro A separate letter of evaluation may be attached to this form if	m three teachers or people capable of necessary.	f judging the professio	nal and academic pro	omise of the applicant.
Society; January 2 for Chemical Engineering, Civil and En Urban Studies and Planning; January 5 for Earth, Atmospl Computation for Design and Optimization, Engineering S Estate. November 1 is the deadline for the February term. of Engineering in Logistics (MLOG) Program. For the Ev Evaluation Form, please go to http://sdm.mit.edu.	avironmental Engineering, Economeric and Planetary Sciences; Janua Systems Division and Technology: January 12 and April 6 are the dealuation Form, please go to http://	nics, Linguistics and P ry 7 for Nuclear Scien and Policy Program; a adlines for Round 1 a www.mit.edu/mlog/.	chilosophy, Mathema ace and Engineering and February 15 for and Round 2, respect For the Systems De	atics; January 3 for ; January 10 for Center for Real tively, for the Master
see letter	see letter	see letter	. "	
Address_GGG lotter	000 101101	occ ictici		
{email} andrew.szeri@berkeley.edu		Date_	11-13-2007	
School or company see letter	Telepho	ne number_see let	ter	
In what capacity do you know the applicant? _professo	or	0		
How long have you known the applicant? 2 years?				
How does this applicant compare with his or her peer gro	oup in academic ability?		M Marie	
Truly exceptional Outstanding Well a equivalent to the very best you have known – a person who, in your experience, appears only every few years		Average able to complete work to the Ph.D.	Below average lower 50%	☐ Inadequate opportunity to observe
In your opinion, how would this student compare to oth	er students in the graduate progra	m at MIT?		
	bove average Above average	□Average	☐Below average	▼Inadequate opportunity
Please give the applicant's relative standing in your depar		n	THE PART OF	to observe

pendent projects will be particularly helpful. If you know of other students who have entered MIT from your institution, a comparison will be especially valuable. If you have any reason to believe that the applicant should not be considered, please explain. see letter If the applicant's first language is not English, please evaluate her/his proficiency to read, write, and speak English. ___ Evaluator's signature Andrew Szeri 11-13-2007 Evaluators: Please feel free to add information about your own educational and professional background if you feel that such information will enhance our understanding of your evaluation. Short biography of Andrew J. Szeri: Prof. Andrew J. Szeri received his Ph.D. in Theoretical and Applied Mechanics at Cornell University in 1988, as an Advisee of Prof. Philip Holmes. After post-doctoral appointments at Caltech and U.C. Santa Barbara with Prof. Stephen Wiggins and Prof. L. Gary Leal, he became Assistant then Associate Professor at U.C. Irvine in 1991. In 1997 Prof. Szeri joined U.C. Berkeley, and was promoted to Professor in 2003. Currently he teaches in the areas of nonlinear dynamics and fluid mechanics. He is on the editorial boards of the Springer-Verlag Journal of Nonlinear Science and of the Journal of the Acoustical Society of America. Prof. Szeri has won several research awards, including a National Science Foundation Graduate Fellowship, an Office of Naval Research Young Investigator award, and a Research Fellowship Please seal and sign the envelope.

Personal evaluation of the applicant. What particularly qualifies this student for study at MIT? Information about accomplishments in research or inde-

>> Evaluators: Please feel free to add information about your own educational and professional background if you feel that such information will enhance our understanding of your evaluation. (Cont.)

from the Alexander von Humboldt Foundation [Germany]. Prof. Szeri is the proud recipient of four teaching awards. His research group currently includes ten doctoral students and several undergraduates. The research is funded by the National Science Foundation Program in Biomedical Engineering, by the N.S.F. Programs in Applied Mathematics, Topology, and Surface & Analytical Chemistry, by the National Institutes of Health, by the NASA Microgravity Program and by the Lawrence Livermore National Laboratory. He has graduated ten Ph.D. students. He chaired the Graduate Council of Berkeley's Academic Senate from 2003-5, which is charged with making policy concerning Berkeley's 10000 graduate students, and with academic review of its 100+ graduate degree programs. He now serves as Associate Dean in the Graduate Division.

UNIVERSITY OF CALIFORNIA, BERKELEY

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SANTA BARBARA · SANTA CRUZ

COLLEGE OF ENGINEERING DEPARTMENT OF MECHANICAL ENGINEERING 6119 ETCHEVERRY HALL #1740 BERKELEY, CALIFORNIA 94720-1740

Telephone:

(510) 643-0298

(510) 642-6163

November 13, 2007

Dear Sir or Madam,

It is a pleasure for me to write this letter of recommendation for Confidential

He was a student in my course ME 106 Introduction to Fluid Mechanics in fall 2006. He earned a B for his efforts in the course, which put him at 42nd in a class of 101 talented Berkeley undergraduates. Con was a solid student throughout the course, and especially conscientious on homework.

If I can be of further assistance, please do not hesitate to contact me.

Sincerely,

Andrew J. Szeri,

the drawfolm gen

Professor of Mechanical Engineering

Dean of the Graduate Division

	No basis	Below	Average	Good	Excellent	Outstanding
	to judge	Average			(top 10%)	(top 2%)
Intellectual potential				X		
Ability to solve problems				X		
Creativity and imagination				X		
Oral communication					X	
Written communication	X					
Ability to work with others					X	
Maturity					X	
Motivation for advanced study				X		
Overall promise				X		

MIT Evaluation for Graduate Admission

Return to: Please read instructions carefully before you complete this form. Department of Massachusetts Institute of Technology 77 Massachusetts Avenue, Room Part 1 To be completed by all applicants Cambridge, MA 02139-4307 Please type or print using black ink. Important: In the upper right of this form, fill in the return address department name and room number (as indicated on pages 4-16 of this booklet). Confidential Applying for admission in the department of Health Sciences and Technology _area of research MEMP for the ultimate degree of Ph.D. Confidential for the term beginning in September 2008 Under the Family Educational Rights and Privacy Act of 1974, a student enrolled at MIT has access to his or her education records. We intend to comply with both the letter and the spirit of this law, while still allowing the student the option of waiving the right to access. If you wish to waive the right to examine this evaluation at a later date, please sign here. Confidential Applicant's signature:_ Part 2 To be completed by evaluator An application for admission to MIT requires evaluations from three teachers or people capable of judging the professional and academic promise of the applicant. A separate letter of evaluation may be attached to this form if necessary. Please return in time for her/him to meet the following deadlines: January 15 for June or September admissions for applicants except as follows: December 15 for Aeronautics and Astronautics, Architecture, Biology, Brain and Cognitive Science, Chemistry, Electrical Engineering and Computer Science, Health Sciences and Technology, Leaders for Manufacturing (see http://lfm.mit.edu for additional details), Mechanical Engineering, Media Arts and Sciences; December 15 for Operations Research; December 31 for Biological/Engineering and Political Science; January 1 for Physics and Science, Technology and Society; January 2 for Chemical Engineering, Civil and Environmental Engineering, Economics, Linguistics and Philosophy, Mathematics; January 3 for Urban Studies and Planning; January 5 for Earth, Atmospheric and Planetary Sciences; January 7 for Nuclear Science and Engineering; January 10 for Computation for Design and Optimization, Engineering Systems Division and Technology and Policy Program; and February 15 for Center for Real Estate. November 1 is the deadline for the February term. January 12 and April 6 are the deadlines for Round 1 and Round 2, respectively, for the Master of Engineering in Logistics (MLOG) Program. For the Evaluation Form, please go to http://www.mit.edu/mlog/. For the Systems Design and Management Evaluation Form, please go to http://sdm.mit.edu. Evaluator's name: Torsten Doll Title Dipl.-Ing. Address Magdalenenstr. 4 Darmstadt Germany email doll@szm.tu-darmstadt.de Date 11-13-2007 School or company Technische Universitaet Darmstadt Telephone number +49 6151 162906 In what capacity do you know the applicant? scholarship holder How long have you known the applicant? 10 weeks How does this applicant compare with his or her peer group in academic ability? Truly exceptional X Outstanding ■ Well above average ■ Above average Average ☐Below average ☐Inadequate opportunity equivalent to the very best comparable to the demonstrated high top 25% able to complete lower 50% to observe you have known - a person best student in a ability work to the Ph.D. who, in your experience, current class appears only every few years In your opinion, how would this student compare to other students in the graduate program at MIT? ☐ Well above average ☐ Above average Truly exceptional **X** Outstanding Average Below average Inadequate opportunity to observe Please give the applicant's relative standing in your department (e.g., 7th in 89) 2nd in 50

Personal evaluation of the applicant. What particularly qualifies this student for study at MIT? Information about accomplishments in research or independent projects will be particularly helpful. If you know of other students who have entered MIT from your institution, a comparison will be especially valuable. If you have any reason to believe that the applicant should not be considered, please explain.

on	is hard working, very effective and resourceful. He is	s strong in the fundamentals in engineering and science an
orks	independently and effectively. Furthermore he is openr	minded and eager for knowledge. In my opinion these are
KIIIS Tr	nat qualify a student to enter any graduate program in r	mechanical [or medical] engineering.
	1	
valuato	or's signature_Torsten Doll	11-13-2007
	ors: Please feel free to add information about your own educational an erstanding of your evaluation.	nd professional background if you feel that such information will enhance
	*	



Prof. Dr.-Ing. H. Hanselka



Ph.D. Committee
Massachusetts Institute of Technology
Dept. of Health Sciences and Technology (HST)
Medical Engineering/Medical Physics

Technische Universität Darmstadt System Reliability and Machine Acoustics Magdalenenstr. 4 64289 Darmstadt Germany

> Dipl.-Ing. Torsten Doll Tel. (06151) 162906 Fax (06151) 166929 e-mail: doll@szm.tu-darmstadt.de web: www.szm.tu-darmstadt.de

Dear MIT Ph.D. review committee,

I am writing on behalf of Con to support his application for the Ph.D. graduate program in Medical Physics at your institution.

This summer Con joined our research group for a period of two and a half months, holding a RISE (Research Internships in Science and Engineering) scholarship from the German Academic Exchange Service (DAAD).

Con assisted me with my work in the field of active noise and vibration control. Part of my current work consists of software interfaces between simulation tools. The aim is to completely simulate the performance of a controlled active (or smart) structure concerning its dynamic behavior as well as the sound radiation from the surface and the evaluation of the residual sound field.

The project required substantial Matlab programming abilities to achieve communication between the different simulation environments. With very little guidance Con got acquainted with in the usage of the required software tools Ansys and LMS Virtual.lab. His main task was to program a Matlab-based software interface for integrated simulations utilizing Simulink model-based controllers on a boundary-element model which was implemented in LMS Virtual.lab. Based on Con 's work, we are now able to test model-based controllers in the virtual simulation environment and directly evaluate the effect of the tested controller on the emitted sound field.

Although I must admit that ten weeks is very little time to comprehensively rate a person, I want to emphasize that Con has been one of my most effective and resourceful students. He is a pleasure to interact with in a research environment. Con is hard working and motivated, he works independently, is an excellent communicator, and strong in the fundamentals in engineering and science.

In conclusion, I am convinced that Con possesses the necessary capabilities to perform very well in any scientific or research challenge and I herewith enthusiastically endorse his application.

Please do not hesitate to contact me with any further questions.

Yours sincerely,

Dipl.-Ing. Torsten Doll November 13, 2007

MIT Evaluation for Graduate Admission

Please read instructions carefully before you complete this form.	Return to:
	Department of Massachusetts Institute of Technology
Double To be completed by all anglesonts	77 Massachusetts Avenue, Room
Part 1 To be completed by all applicants	Cambridge, MA 02139-4307
Please type or print using black ink. Important: In the upper right of this form, fill in the return address department	t name and room number (as indicated on pages 4–16 of this booklet).
Name: Confidential	
last/family first	middle
Applying for admission in the department of Health Sciences and Tec	hnology
for the ultimate degree of Ph.D.	area of research MEMP
for the term beginning in September 2008	email Confidential
Under the Family Educational Rights and Privacy Act of 1974, a student enrol with both the letter and the spirit of this law, while still allowing the student the examine this evaluation at a later date, please sign here.	
Applicant's signature:	date
Part 2 To be completed by evaluator	
An application for admission to MIT requires evaluations from three teachers or peo A separate letter of evaluation may be attached to this form if necessary.	ple capable of judging the professional and academic promise of the applicant.
for Aeronautics and Astronautics, Architecture, Biology, Brain and Cognitive Sc Sciences and Technology, Leaders for Manufacturing (see http://lfm.mit.edu for December 15 for Operations Research; December 31 for Biological/Engineering Society; January 2 for Chemical Engineering, Civil and Environmental Engineer Urban Studies and Planning; January 5 for Earth, Atmospheric and Planetary Sc Computation for Design and Optimization, Engineering Systems Division and Estate. November 1 is the deadline for the February term. January 12 and April of Engineering in Logistics (MLOG) Program. For the Evaluation Form, please Evaluation Form, please go to http://sdm.mit.edu.	additional details), Mechanical Engineering, Media Arts and Sciences; and Political Science; January 1 for Physics and Science, Technology and ring, Economics, Linguistics and Philosophy, Mathematics; January 3 for tences; January 7 for Nuclear Science and Engineering; January 10 for Technology and Policy Program; and February 15 for Center for Real 6 are the deadlines for Round 1 and Round 2, respectively, for the Master
Evaluator's name: David Auslander	_ _{Title} _Professor
Address Univ. of California Berkeley	CA 94720-1740 USA
email_dma@me.berkeley.edu	Date 11-15-2007
School or company Univ. of California at Berkeley	Telephone number 510-642-4930
In what capacity do you know the applicant? He was a student in my c	lass
How long have you known the applicant? 1 year	
How does this applicant compare with his or her peer group in academic abilit	y?
, 1	we average Average Below average Inadequate opportunity onstrated high able to complete lower 50% to observe ty work to the Ph.D.
In your opinion, how would this student compare to other students in the gra	duate program at MIT?
☐ Truly exceptional ☐ Outstanding ☐ Well above average X Abo	
Please give the applicant's relative standing in your department (e.g., 7th in 89	N/A to observe

Personal evaluation of the applicant. What particularly qualifies this student for study at MIT? Information about accomplishments in research or independent projects will be particularly helpful. If you know of other students who have entered MIT from your institution, a comparison will be especially valuable. If you have any reason to believe that the applicant should not be considered, please explain.

Con	took the class ME 135, Microprocessor Based Design of Mechanical Systems from me [spring, 2007]. This class is
largel	y lab based and requires work with a team [mostly two students per team]. The first part of the class is a set of lab
exerci	ises; the second part is a student-selected project.
Con	very well in this class. His team worked on a project to use an articulated robot for sorting objects. They
desig	ned and implemented the control software and devised the instruments to measure the size of objects on a
conve	yor. He worked well in his team and was an active participant in the class.
Con	has maintained an excellent record here and has taken full advantage of opportunities for additional engineering
exper	ience such as his work on the super mileage vehicle and the industrial liaison work he hs done with the ME student
honor	society.
Con	s academic record is excellent and he has taken a professional, broad approach to his education. I am sure he will
If the a	pplicant's first language is not English, please evaluate her/his proficiency to read, write, and speak English.
	B 114 1 1
Evaluat	or's signature David Auslander 11-15-2007
Evaluat	or's signature David Auslander 11-15-2007 ors: Please feel free to add information about your own educational and professional background if you feel that such information will enhance derstanding of your evaluation.
Evaluat	ors: Please feel free to add information about your own educational and professional background if you feel that such information will enhance
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Evaluat	ors: Please feel free to add information about your own educational and professional background if you feel that such information will enhance

>> Personal evaluation of the applicant. (Cont.)

do very well as a graduate student.



GRADUATE INSTITUTION REPORT OF SCORES

SCHOOL CODE: 3514 DEPT. CODE: 0609

AST NAME: Confidentia	l		and the state of	
IRST NAME:				
DDRESS:				
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В	RTH DAT	TH DATE			MOST			
МО	MO DAY YR SOCIAL SECURIT		SOCIAL SECURITY NUMBER	SEX	TEST DATE	REGISTRATION NUMBER	- PRINT DATE	
01	18	86	605-10-9189	M	09/07	5355691	10/10/07	

INSTITUTION CODE & NAME		DEPARTM	ENT CODE & NAME	
3514 MASSACHUSETTS INST TECH	0609 COPY	FOR MEDICAL	SCIENCES	

	GENERAL TEST ST DATE VERBAL QUANTITATIVE ANALYTICAL WRITING ANALYTICAL										ANALYTICAL WRITING/ WRITING ASSESSMENT*		
TEST DATE	VEF	RBAL	QUANT	TATIVE	ANALYTICAL WRITING		ANALYTICAL		TEST DATE				
MMYY	SCORE	% BELOW	SCORE	% BELOW	SCORE	% BELOW	SCORE	% BELOW	MMYY	SCORE	% BELOW		
09/07	590	83	790	92	4.5	54							
									(=				

NS: No Score. Indicates that no questions were answered in this section.

^{*} Analytical Writing scores earned from the stand-alone administration and/or Writing Assessment scores earned between October 1, 2002, and December 31, 2003.

SUBJECT TEST						
TEST DATE MMYY	TEST NAME	SCORE	% BELOW			% ELOW
	A					

This report of scores is valid only if received directly from Educational Testing Service® (ETS®). GRE scores are confidential and should not be released by the recipient without the explicit permission of the examinee. All staff with access to score records should be explicitly advised of their confidential nature.

Each percentile rank (%) in this score report shows the percentage of examinees who took that test and scored lower than the reported score. Regardless of when the reported scores were earned, the percentile ranks for the General Test and for the Subject Tests are based on the scores of all examinees who tested within the most recent three-year period.

GUIDELINES FOR THE USE OF GRE SCORES

The potential misuse of GRE scores is a central concern of the GRE Board. The GRE Guide to the Use of Scores contains guidelines describing both the appropriate uses of GRE scores and the limitations to their use. Critical guidelines include the following:

- Use multiple criteria
- Consider Verbal, Quantitative, and Analytical Writing scores as three separate and independent measures
- · Avoid decisions based on small score differences
- Maintain confidentiality of GRE scores

You are urged to carefully evaluate your program's uses of GRE scores in light of these guidelines. To obtain a copy of the *Guide*, download it from the GRE website at www.ets.org/gre/edupubs.html or contact the GRE Program at gretests@ets.org or 1-609-683-2002.

STANDARD ERROR OF MEASUREMENT (SEM)

The SEM of individual scores is a useful statistic for interpreting the accuracy of GRE scores. The SEM of score differences is a useful statistic for understanding whether differences between individual scores are meaningful. Refer to the *Guide* for an explanation of these terms and their importance in proper evaluation of GRE scores.

SCORE LEVEL DESCRIPTIONS FOR THE ANALYTICAL WRITING MEASURE*

Although the GRE Analytical Writing section contains two discrete analytical writing tasks, a single combined score is reported because it is more reliable than is a score for either task alone. The reported score, the average of the scores for the two tasks, ranges from 0 to 6, in half-point increments.

The statements that follow describe, for each score level, the overall quality of analytical writing demonstrated across both the Issue and Argument tasks. Because the test assesses critical thinking and analytical writing skills, the ability to reason, assemble evidence to develop a position, and communicate complex ideas weigh more heavily than the writer's control of fine points of grammar or the mechanics of writing (e.g., spelling).

SCORES 6 and 5.5 — Sustains insightful, in-depth analysis of complex ideas; develops and supports main points with logically compelling reasons and/or highly persuasive examples; is well focused and well organized; skillfully uses sentence variety and precise vocabulary to convey meaning effectively; demonstrates superior facility with sentence structure and language usage but may have minor errors that do not interfere with meaning.

SCORES 5 and 4.5 — Provides generally thoughtful analysis of complex ideas; develops and supports main points with logically sound reasons and/or well-chosen examples; is generally focused and well organized; uses sentence variety and vocabulary to convey meaning clearly; demonstrates good control of sentence structure and language usage but may have minor errors that do not interfere with meaning.

SCORES 4 and 3.5 — Provides competent analysis of complex ideas; develops and supports main points with relevant reasons and/or examples; is adequately organized; conveys meaning with reasonable clarity; demonstrates satisfactory control of sentence structure and language usage but may have some errors that affect clarity.

SCORES 3 and 2.5 — Displays some competence in analytical writing, although the writing is flawed in at least one of the following ways: limited analysis or development; weak organization; weak control of sentence structure or language usage, with errors that often result in vagueness or lack of clarity.

SCORES 2 and 1.5 — Displays serious weaknesses in analytical writing. The writing is seriously flawed in at least one of the following ways: serious lack of analysis or development; lack of organization; serious and frequent problems in sentence structure or language usage, with errors that obscure meaning.

SCORES 1 and .5 — Displays fundamental deficiencies in analytical writing. The writing is fundamentally flawed in at least one of the following ways: content that is extremely confusing or mostly irrelevant to the assigned tasks; little or no development; severe and pervasive errors that result in incoherence.

SCORE 0 — The examinee's analytical writing skills cannot be evaluated because the responses do not address any part of the assigned tasks, are merely attempts to copy the assignments, are in a foreign language, or display only indecipherable text.

SCORE NS - The examinee produced no text whatsoever.

*These score level descriptions are also for the Writing Assessment that was discontinued in December 2003.

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