

COLUMBIA UNIVERSITY  
THE FU FOUNDATION SCHOOL OF  
ENGINEERING AND APPLIED SCIENCE

TWO THOUSAND FOURTEEN

*Celebrating Faculty Excellence*

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ACCLAIMING THE AWARDS, HONORS,  
AND RECOGNITIONS THAT OUR FACULTY  
RECEIVED DURING THE PAST YEAR



*Excellence*

“We are in a Renaissance period for Engineering—a period of great research, great creativity and invention, great innovation, and incredible translation of these innovations to solutions that impact every aspect of society.”

—MARY C. BOYCE

*Excellence*

## *Introduction*



*A*s we pause today to celebrate the significant accomplishments of our faculty during the past academic year, we recognize that our honorees are part of the lineage of faculty excellence that began at Columbia even before our School was founded. Early engineering inventors and entrepreneurs paved the way for the establishment of our School in 1864 as the School of Mines. Just as the School of Mines was at the forefront of technological breakthroughs of its time, our School today continues this 150-year tradition of excellence in education, research, and innovation.

We are in an Engineering Renaissance that is worldwide but is nowhere seen more clearly than at Columbia Engineering. The pathbreaking research of our faculty, together with their students, acts to define and push disciplinary frontiers that will impact our lives in ways we can only begin to imagine; their research also directly confronts the complexities of the grand challenges facing our world with engineering solutions that transform our future. Today, our faculty actively work to translate their research into practical innovations, capitalizing on our expanding avenues for entrepreneurship and engagement with industry. Through our teaching, mentoring, and example, we are preparing our students to use their intellect, their diverse talents, their creativity and passion to impact our world and to make the lives of future generations better.

Faculty who are cited here signal the continuation of our School's impressive tradition of outstanding research and scholarship. This year we are pleased to celebrate the exceptional scholarship of Gordana Vunjak-Novakovic, newly elected to the Institute of Medicine of the National Academies, seven professors who have received named chairs—Steven M. Bellovin, Maria Chudnovsky, Qiang Du, James C. Hone, Kam W. Leong, Kenneth L. Shepard, and Yannis P. Tsvividis—and all faculty who have received recognitions this past year. Congratulations!

*Mary C. Boyce*

Mary C. Boyce

Dean of Engineering

Morris A. and Alma Schapiro Professor



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## GORDANA VUNJAK-NOVAKOVIC

*Mikati Foundation Professor of Biomedical Engineering and  
Professor of Medical Sciences (in Medicine)*

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### INSTITUTE OF MEDICINE

elected a member of the Institute of Medicine of the National Academies in recognition of her outstanding professional achievement in the fields of health and medicine

## *Named Professors*

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STEVEN M. BELLOVIN

*Percy K. and Vida L. W. Hudson Professor of Computer Science*

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COMPUTER SCIENCE



MARIA CHUDNOVSKY

*Liu Family Professor of Industrial Engineering and Operations Research and Professor of Mathematics*

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INDUSTRIAL ENGINEERING AND OPERATIONS RESEARCH

MATHEMATICS



QIANG DU

*The Fu Foundation Professor of Applied Mathematics*

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APPLIED PHYSICS AND APPLIED MATHEMATICS



JAMES C. HONE

*Wang Fong-Jen Professor of Mechanical Engineering*

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MECHANICAL ENGINEERING

## *Named Professors*

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KAM W. LEONG

*Samuel Y. Sheng Professor of Biomedical Engineering*

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BIOMEDICAL ENGINEERING



KENNETH L. SHEPARD

*Lau Family Professor of Electrical Engineering and  
Professor of Biomedical Engineering*

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ELECTRICAL ENGINEERING

BIOMEDICAL ENGINEERING



YANNIS P. TSIVIDIS

*Edwin Howard Armstrong Professor of Electrical Engineering*

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ELECTRICAL ENGINEERING

# *Singular Honors*

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## VAN C. MOW

*Stanley Dicker Professor of Biomedical Engineering in the Faculty of Engineering and Applied Science and Professor of Orthopaedic Engineering in Orthopaedic Surgery*

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### 2014 ASME MEDAL

awarded by the American Society of Mechanical Engineers (ASME) in recognition of eminently distinguished engineering achievement

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## MASANOBU SHINOZUKA

*Professor of Civil Engineering and Engineering Mechanics*

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### ASCE MEDAL NAMED IN HONOR OF PROFESSOR SHINOZUKA

American Society of Civil Engineers (ASCE) established the Masanobu Shinozuka Medal, awarded biannually to an individual in recognition of outstanding research contributions in stochastic systems with applications to several branches of civil engineering

### HOJJAT ADELI AWARD FOR INNOVATION IN COMPUTING

for his paper “A Stochastic Computational Framework to Investigate the Initial Stage of Corrosion in Reinforced Concrete Superstructures,” coauthored with B. Shafei and A. Alipour



# Faculty Early Career Development Awards

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## MATEI CIOCARLIE

*Assistant Professor of Mechanical Engineering*

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### EARLY CAREER AWARD

awarded by the Institute of Electrical and Electronics Engineers for major contributions to robotic manipulation research, released as open-source, and widely adopted and used in both academia and industry



## ROXANA GEAMBASU

*Assistant Professor of Computer Science*

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### NSF CAREER AWARD

for her proposal to create new data protection abstractions for modern operating systems

### MICROSOFT RESEARCH FACULTY FELLOW

given to early career scholars who are engaged in state-of-the-art computing research and have the potential to make significant advances in the field



## PIERRE GENTINE

*Assistant Professor of Earth and Environmental Engineering*

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### NASA NEW INVESTIGATOR PROGRAM (NIP) IN EARTH SCIENCE

to study turbulence in Earth's atmosphere and develop new models that can predict climate more effectively. The NIP is designed to support outstanding scientific research and career development of scientists and engineers at the early stage of their professional careers.

# Faculty Early Career Development Awards

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## VINEET GOYAL

*Assistant Professor of Industrial Engineering and Operations Research*

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### NSF CAREER AWARD

for his research on designing data-driven tractable and robust approaches for large-scale dynamic optimization under uncertainty

### IBM FACULTY AWARD

given to outstanding researchers at leading universities worldwide to foster collaboration with those in IBM research

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## CHRISTINE HENDON

*Assistant Professor of Electrical Engineering*

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### NIH NEW INNOVATOR AWARD

for her proposal, “High resolution imaging of the myocardium”; awarded to creative, new investigators who propose exceptionally innovative research ideas that have the potential for high impact

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## HARISH KRISHNASWAMY

*Assistant Professor of Electrical Engineering*

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### 2014 IBM FACULTY AWARD

given to outstanding researchers at leading universities worldwide to foster collaboration with those in IBM research

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# *Faculty Early Career Development Awards*

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JAVAD LAVAEI

*Assistant Professor of Electrical Engineering*

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NSF CAREER AWARD

for his research on electrical power networks

YOUNG INVESTIGATOR AWARD, OFFICE OF NAVAL RESEARCH (ONR)  
for his work in upgrading today's power grid into a smart grid that  
can maintain a reliable and secure electricity infrastructure to meet  
future demand growth

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QI WANG

*Assistant Professor of Biomedical Engineering*

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2014 EARLY CAREER ACHIEVEMENT AWARD FROM THE IEEE  
ENGINEERING IN MEDICINE AND BIOLOGY SOCIETY (EMBS)

for his contribution to neural engineering and biomedical  
instrumentation, including measuring biomechanical properties of  
skin and tissue, building a tactile display for a virtual Braille system,  
and discovery of a neural basis for sensory adaptation in behavior

# *Election to Professional Societies*

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## DIMITRIS ANASTASSIOU

*Charles Batchelor Professor of Electrical Engineering*

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FELLOW, NATIONAL ACADEMY OF INVENTORS

a high professional distinction accorded to academic inventors who have demonstrated a spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development, and the welfare of society

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## STEVEN BELLOVIN

*Percy K. and Vida L. W. Hudson Professor of Computer Science*

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NATIONAL CYBER SECURITY HALL OF FAME

honoring innovative individuals and organizations who have demonstrated vision and leadership in creating the foundational building blocks for the cybersecurity industry

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## SIMON BILLINGE

*Professor of Materials Science and Applied Physics and Applied Mathematics*

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FELLOW, NEUTRON SCATTERING SOCIETY OF AMERICA

in recognition of his “seminal contributions to the field of local structure and nanostructure studies using atomic pair distribution function methods and impact on the field of neutron diffraction”

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## XI CHEN

*Associate Professor of Earth and Environmental Engineering*

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FELLOW, AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

in recognition of outstanding engineering achievements

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# *Election to Professional Societies*

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## GEORGE DEODATIS

*Santiago and Robertina Calatrava Family Professor of Civil Engineering; Chair, Department of Civil Engineering and Engineering Mechanics*

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FELLOW, ENGINEERING MECHANICS INSTITUTE OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)

which serves the engineering community through the development and application of engineering mechanics and seeks to establish a presence at the forefront of new thrusts of mechanics by promoting innovative developments in the field

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## JULIA HIRSCHBERG

*Percy K. and Vida L. W. Hudson Professor of Computer Science; Chair, Department of Computer Science*

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ELECTED MEMBER, AMERICAN PHILOSOPHICAL SOCIETY

in recognition of her contributions to spoken language processing

HONORARY MEMBER, ASSOCIATION FOR LABORATORY PHONOLOGY

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## CHRISTOPHER JACOBS

*Professor of Biomedical Engineering*

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FELLOW, AMERICAN INSTITUTE FOR MEDICAL AND BIOLOGICAL ENGINEERING (AIMBE)

for fundamental advances in cellular biomechanics and mechanosensing, and for the training and mentoring of leaders in biomechanics

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# *Election to Professional Societies*

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ELISA KONOFAGOU

*Professor of Biomedical Engineering and of Radiology*

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FELLOW, AMERICAN INSTITUTE FOR MEDICAL AND BIOLOGICAL ENGINEERING (AIMBE)

for outstanding contributions to the field of biomedical ultrasound imaging and therapeutics, and advancing the field of elasticity imaging

BIOMEDICAL WELLNESS PIONEER AWARD

awarded by the International Society for Optics and Photonics at its Defense, Security, and Sensing (DSS) meeting

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MICHAEL MASSIMINO

*Professor of Professional Practice, Mechanical Engineering*

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FELLOW, EXPLORERS CLUB

the international multidisciplinary professional society dedicated to the advancement of field research and the ideal that it is vital to preserve the instinct to explore

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LORENZO POLVANI

*Professor of Applied Physics and Applied Mathematics and of Earth and Environmental Sciences*

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FELLOW, AMERICAN METEOROLOGICAL SOCIETY

for outstanding contributions to the atmospheric or related oceanic or hydrologic sciences

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# *Election to Professional Societies*

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MIHALIS YANNAKAKIS

*Percy K. and Vida L. W. Hudson Professor of Computer Science*

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ELECTED MEMBER, ACADEMIA EUROPAEA

a functioning European Academy of Humanities, Letters, and Sciences, composed of members chosen through peer group nomination, scrutiny, and confirmation as to the scholarship and eminence of the individual in their chosen field

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MICHAEL WEINSTEIN

*Professor of Applied Mathematics and Professor of Mathematics*

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FELLOW, AMERICAN MATHEMATICAL SOCIETY

for contributions to existence and stability of solitary waves, and nonlinear dispersive wave propagation

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## *Recognition/Achievement Awards*

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DAVID BLEI

*Professor of Computer Science and of Statistics*

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BLAVATNIK AWARD FOR YOUNG SCIENTISTS: FACULTY WINNER, 2013 awarded by the New York Academy of Sciences to recognize outstanding scientists and engineers by encouraging and accelerating innovation through unrestricted funding and by recognizing their extraordinary achievements as vital contributions to science and society

2013 ACM-Infosys Foundation Award for the Computing Sciences

recognizes personal contributions by young scientists and system developers to a contemporary innovation that, through its depth, fundamental impact, and broad implications, exemplifies the greatest achievements in the discipline

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AUGUSTIN CHAINTREAU

*Assistant Professor of Computer Science*

---

2013 Association for Computing Machinery (ACM) SIGMETRICS Rising Star Researcher Award for his significant contributions to the analysis of emerging distributed digital and social networking systems

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JINGGUANG CHEN

*Thayer Lindsley Professor of Chemical Engineering*

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GEORGE OLAH AWARD, AMERICAN CHEMICAL SOCIETY awarded to recognize, encourage, and stimulate outstanding research achievements in hydrocarbon or petroleum chemistry

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## *Recognition/Achievement Awards*

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STEVEN FEINER

*Professor of Computer Science*

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IEEE VGTC 2014 VIRTUAL REALITY CAREER AWARD

in recognition of his lifetime contributions to augmented reality and virtual reality, including seminal research on mobile augmented reality, automated design and layout, and applications to task assistance and navigation

KEYNOTE SPEAKER, 15TH INTERNATIONAL CONFERENCE ON HUMAN-COMPUTER INTERACTION WITH MOBILE DEVICES AND SERVICES

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ROXANA GEAMBASU

*Assistant Professor of Computer Science*

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POPULAR SCIENCE'S "BRILLIANT 10"

named to the annual list of the brightest young minds in science and engineering, for her research that "teaches the cloud to forget personal data" and software that allows the public to see where their personal information is shared

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DONALD GOLDFARB

*Alexander and Hermine Avanesians Professor of Industrial Engineering and Operations Research*

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SELECTEE, WORLD'S MOST INFLUENTIAL SCIENTIFIC MINDS 2014 designating his work as among the top one percent most cited for the subject field and year of publication, earning the mark of exceptional impact

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## *Recognition/Achievement Awards*

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ELIZABETH M. C. HILLMAN

*Associate Professor of Biomedical Engineering and of Radiology*

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RISING STAR, OPTICAL SOCIETY OF AMERICA (OSA)  
in recognition of research contributions on optics in the brain

ASSOCIATE EDITOR, OPTICAL SOCIETY OF AMERICA (OSA) *OPTICA*

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CHRISTOPHER JACOBS

*Professor of Biomedical Engineering*

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2014 VAN C. MOW MEDAL, AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

bestowed upon an individual who has demonstrated meritorious contributions to the field of bioengineering through research, education, professional development, and leadership, specifically for his exemplary research in bone cellular mechanotransduction and computational biomechanics

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IOANNIS A. KOUGIOUMTZOGLOU

*Assistant Professor of Civil Engineering and Engineering Mechanics*

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2014 JUNIOR RESEARCH PRIZE, EUROPEAN ASSOCIATION OF STRUCTURAL DYNAMICS (EASD)

for his innovative influence on the field of nonlinear stochastic dynamics

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UPMANU LALL

*Alan and Carol Silberstein Professor of Earth and Environmental Engineering and Professor of Civil Engineering and Engineering Mechanics*

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2014 HENRY DARCY MEDAL FROM THE EUROPEAN GEOSCIENCES UNION  
recognizing outstanding scientific contributions in water resources research and water resources engineering and management

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# Recognition/Achievement Awards

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JAVAD LAVAEI

*Assistant Professor of Electrical Engineering*

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2014 RESONATE AWARD, RESNICK SUSTAINABILITY INSTITUTE  
for his research on building a computational backbone to transform  
the power grid into one that is flexible, smart, and dynamic

2013 GOOGLE FACULTY RESEARCH AWARD  
given to support the work of world-class full-time faculty members  
at top universities around the world

INVITED PARTICIPANT, NATIONAL ACADEMY OF ENGINEERING 2014  
US FRONTIERS OF ENGINEERING SYMPOSIUM  
for exceptional engineering research and technical work in a variety of  
disciplines, including next-generation robotics; frontiers of materials  
for batteries, shale gas, and oil; and technologies for the heart

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ALLISON LEWKO

*Assistant Professor of Computer Science*

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FORBES "30 UNDER 30," SCIENCE AND HEALTHCARE CATEGORY  
for her work on designing encryption algorithms and keeping data  
secure

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HOE LING

*Professor of Civil Engineering and Engineering Mechanics*

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IGS AWARD, INTERNATIONAL GEOSYNTHETICS SOCIETY  
for outstanding contribution to the development and use of  
geotextiles, geomembranes, related products, or associated  
technologies through their scientific and technological achievements

HONORARY PROFESSOR, SHIJIAZHUANG RAILWAY UNIVERSITY, CHINA

## *Recognition/Achievement Awards*

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VISHAL MISRA

*Associate Professor of Computer Science*

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2014 U. MASS AMHERST COLLEGE OF ENGINEERING OUTSTANDING JUNIOR ALUMNI AWARD

for exemplary accomplishments, epitomizing the potential of a U. Mass Amherst College of Engineering education

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SHREE NAYAR

*T. C. Chang Professor of Computer Science*

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LETTER OF APPRECIATION FROM SONY CORPORATION

for his seminal contributions to computational imaging

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JASON NIEH

*Professor of Computer Science*

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GOOGLE RESEARCH AWARD

given to support the work of world-class full-time faculty members at top universities around the world

KENNETH C. SEVCIK OUTSTANDING STUDENT PAPER AWARD

for "A Measurement Study of Google Play," coauthored with Nicolas Viennot

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# Recognition/Achievement Awards

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## ADAM SOBEL

*Professor of Applied Physics and Applied Mathematics and of Earth and Environmental Sciences*

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ASCENT AWARD, ATMOSPHERIC SCIENCES SECTION OF THE AMERICAN GEOPHYSICAL UNION

recognizing exceptional mid-career academic, government, and private sector scientists who demonstrate excellence in research and leadership in the fields of the atmospheric and climate sciences

AXA AWARD IN CLIMATE AND EXTREME WEATHER

to support research in the relationship between extreme weather events and the climate

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## PONISSERIL SOMASUNDARAN

*LaVon Duddleson Krumb Professor of Mineral Engineering in the Department of Earth and Environmental Engineering*

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APPOINTED AS ADVISER/CONSULTANT TO CHINA WASTE WATER TREATMENT PROGRAM, NANJING

MEMBER, ENVIRONMENTAL PROTECTION AGENCY BOARD OF SCIENTIFIC COUNSELORS AND EXECUTIVE COMMITTEE

CHAIR, COMBINED BOSC SUBCOMMITTEES FOR CHEMICAL SAFETY FOR SUSTAINABILITY AND HUMAN HEALTH RISK ASSESSMENT RESEARCH PROGRAM

CHAIR, AMERICAN CHEMICAL SOCIETY UNILEVER AWARD

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## Recognition/Achievement Awards

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### GORDANA VUNJAK-NOVAKOVIC

*Mikati Foundation Professor of Biomedical Engineering and Professor of Medical Sciences (in Medicine)*

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ADVISORY BOARD, CITY COLLEGE NEW YORK, DEPARTMENT OF BIOMEDICAL ENGINEERING

SCIENTIFIC ADVISORY BOARD, ADVANCED CELL TECHNOLOGY, MARLBOROUGH, MA

SCIENTIFIC ADVISORY BOARD, UK CENTERS FOR TISSUE ENGINEERING/REGENERATIVE MEDICINE, IMPERIAL COLLEGE, LONDON

SCIENTIFIC ADVISORY PANEL, STRATEGIC PLAN FOR NEW YORK STATE STEM CELL SCIENCE

ADVISORY COUNCIL, RENSSELAER POLYTECHNIC INSTITUTE, DEPARTMENT OF BIOMEDICAL ENGINEERING

EDITORIAL BOARD MEMBER, *REGENERATIVE ENGINEERING*; *CURRENT OPINION IN CHEMICAL ENGINEERING*; *JOURNAL OF EXPERIMENTAL BIOLOGY AND MEDICINE*; *JOURNAL OF EXPERIMENTAL ORTHOPAEDICS*; *ORGANOGENESIS*

STANDING MEMBER, RESEARCH EXECUTIVE AGENCY OF THE EUROPEAN COMMISSION

MEMBER, FRITZ J. AND DOLORES H. RUSS PRIZE COMMITTEE OF THE NATIONAL ACADEMY OF ENGINEERING

COUNCIL MEMBER, TISSUE ENGINEERING AND REGENERATIVE MEDICINE INTERNATIONAL SOCIETY (TERMIS) AMERICA

## *Recognition/Achievement Awards*

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HAIM WAISMAN

*Associate Professor of Civil Engineering and Engineering Mechanics*

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2014 EMI LEONARDO DA VINCI (YOUNG INVESTIGATOR) AWARD awarded by the Engineering Mechanics Institute, American Society of Civil Engineers (ASCE), for his outstanding contribution to computational fracture and damage mechanics by developing novel computational methods that advance the understanding, modeling capabilities, and applications of fracture mechanics to engineering mechanics problems at diverse length and time scales

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ALAN WEST

*Samuel Ruben–Peter G. Viele Professor of Electrochemistry*

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ELECTRODEPOSITION RESEARCH AWARD OF THE ELECTROCHEMICAL SOCIETY (ECS) recognizing recent outstanding achievement or contribution in the field of electrodeposition

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CHRIS WIGGINS

*Associate Professor of Applied Mathematics*

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APPOINTED CHIEF DATA SCIENTIST, *THE NEW YORK TIMES*

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## *Recognition/Achievement Awards*

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Y. LAWRENCE YAO

*Professor of Mechanical Engineering*

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DEDICATED SERVICE AWARD, AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

honoring unusual dedicated voluntary service to the Society marked by outstanding performance, demonstrated effective leadership, prolonged and committed service, devotion, enthusiasm, and faithfulness

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GIL ZUSSMAN

*Associate Professor of Electrical Engineering*

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MARIE CURIE INTERNATIONAL INCOMING FELLOWSHIP

awarded by the European Commission 7th Framework Program (FP7), to support research during a long-term visit to the School of Computer Science in Tel Aviv University, Israel, in the area of design and performance evaluation of resource allocation algorithms for energy harvesting networks

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# Scholarly Achievement and Leadership

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SUNIL AGRAWAL

*Professor of Mechanical Engineering and of Rehabilitation and Regenerative Medicine*

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CHAIR, ASME DESIGN ENGINEERING DIVISION

KEYNOTE SPEAKER, IEEE LIFE SCIENCES GRAND CHALLENGES CONFERENCE, PLENARY LECTURE, SINGAPORE ROBOTICS GAMES

HONORARY PROFESSOR OF ROBOTICS, COMPUTER SCIENCE RESEARCH INSTITUTE, SCHOOL OF COMPUTING AND INTELLIGENT SYSTEMS, UNIVERSITY OF ULSTER, MAGEE CAMPUS

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WILLIAM BAILEY

*Associate Professor of Materials Science and Engineering in the Department of Applied Physics and Applied Mathematics*

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2013 NANOSCIENCES FOUNDATION CHAIRE D'EXCELLENCE, GRENOBLE, FRANCE

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KATAYUN BARMAK

*Philips Electronics Professor of Applied Physics and Applied Mathematics*

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BOOK PUBLISHED

*Metallic Films for Electronic, Magnetic, Optical and Thermal Applications: Structure, Processing and Properties*, eds. K. Barmak, K. R. Coffey, Woodhead Publishing Ltd. (now Elsevier)

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RAIMONDO BETTI

*Professor of Civil Engineering and Engineering Mechanics*

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MEMBER, BOARD OF GOVERNORS OF THE INTERNATIONAL ASSOCIATION OF STRUCTURAL CONTROL AND MONITORING

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# Scholarly Achievement and Leadership

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## DANIEL BIENSTOCK

*Professor of Industrial Engineering and Operations Research  
and of Applied Physics and Applied Mathematics*

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EDITOR IN CHIEF, *MATHEMATICAL PROGRAMMING COMPUTATION*

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## KARTIK CHANDRAN

*Associate Professor of Earth and Environmental Engineering*

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GUEST PROFESSOR, ROYAL DUTCH ACADEMY OF ARTS AND SCIENCES

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## SHIH-FU CHANG

*Richard Dicker Professor of Telecommunications and Professor  
of Computer Science; Senior Vice Dean, The Fu Foundation  
School of Engineering and Applied Science*

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FIRST PRIZE AWARD, GRAND CHALLENGE PROGRAM OF THE 2013  
ACM MULTIMEDIA CONFERENCE

for “Structured Exploration of Who, What, When, and Where  
in Heterogeneous Multimedia News Sources,” coauthored with  
Brendan Jou, Hongzhi Li, Joseph G. Ellis, and Daniel Morozoff-  
Abegauz

BEST PAPER AWARD, 2014 ACM CONFERENCE ON MULTIMEDIA  
RETRIEVAL

for “Minimally Needed Evidence for Complex Event Recognition in  
Unconstrained Videos,” coauthored with Subhabrata Bhattacharya  
and Felix X. Yu

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# Scholarly Achievement and Leadership

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X. EDWARD GUO

*Professor of Biomedical Engineering*

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1000PLAN PROFESSORSHIP, WEST CHINA COLLEGE OF STOMATOLOGY  
OF SICHUAN UNIVERSITY

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TONY JBARA

*Associate Professor of Computer Science*

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NEURAL AND COGNITIVE COMPUTATION CHAIR PROFESSOR,  
TSINGHUA UNIVERSITY

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MARTHA KIM

*Assistant Professor of Computer Science*

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KENNETH A. ROSS

*Professor of Computer Science*

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TOP PICK PAPER, *IEEE MICRO* SPECIAL ANNUAL ISSUE  
for “Navigating Big Data with High-Throughput, Energy-Efficient  
Data Partitioning,” coauthored with Lisa Wu and Raymond J. Barker

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PETER KINGET

*Professor of Electrical Engineering*

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MEMBER, ADMINISTRATIVE COMMITTEE OF THE IEEE SOLID-STATE  
CIRCUITS SOCIETY

KEYNOTE SPEAKER, EUROPEAN SOLID-STATE CONFERENCE IN  
SEPTEMBER 2013

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# Scholarly Achievement and Leadership

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PETER KINGET

*Professor of Electrical Engineering*

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IOANNIS KYMISSIS

*Associate Professor of Electrical Engineering*

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BEST POSTER AWARD, 2013 GLOBAL INTERPOSER TECHNOLOGY (GIT) WORKSHOP

for “Excimer Laser Crystallized Silicon for BEOL 3D Integration,” coauthored with Fabio Carta

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ELISA KONOFAGOU

*Professor of Biomedical Engineering and of Radiology (Physics)*

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SIGNIFICANT PAPER, *IEEE TRANSACTIONS ON ULTRASONICS, FERROELECTRICS, AND FREQUENCY CONTROL*

for “Transcranial Cavitation Detection in Primates during Blood-Brain Barrier Opening—A Performance Assessment Study, *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, 2014,” coauthored with Shih-Ying Wu, Yao-Sheng Tung, Fabrice Marquet, Matthew E. Downs, Carlos J. Sierra Sánchez, Cherry C. Chen, and Vincent P. Ferrera

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IOANNIS KYMISSIS

*Associate Professor of Electrical Engineering*

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INVITED PARTICIPANT, NATIONAL ACADEMY OF ENGINEERING 2014 US FRONTIERS OF ENGINEERING SYMPOSIUM

SPEAKER, INDO-AMERICAN FRONTIERS OF ENGINEERING

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# *Scholarly Achievement and Leadership*

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JEFFREY W. KYSAR

*Professor and Chair of Mechanical Engineering*

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KEYNOTE SPEAKER, PLASTICITY 2014



ANDREW LAINE

*Percy K. and Vida L. W. Hudson Professor of Biomedical Engineering and Professor of Radiology (Physics); Chair, Department of Biomedical Engineering*

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PRESIDENT, IEEE ENGINEERING IN BIOLOGY AND MEDICINE SOCIETY (EMBS)



QIAO LIN

*Associate Professor of Mechanical Engineering*

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KEYNOTE SPEAKER, 24TH ANNIVERSARY WORLD CONFERENCE ON BIOSENSORS



RICHARD LONGMAN

*Professor of Mechanical Engineering and of Civil Engineering and Engineering Mechanics*

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DISTINGUISHED ROMBERG GUEST PROFESSOR, UNIVERSITY OF HEIDELBERG

# Scholarly Achievement and Leadership

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## MASANOBU SHINOZUKA

*Professor of Civil Engineering and Engineering Mechanics*

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INVITED PARTICIPANT, US/JAPAN INFORMATION EXCHANGE ON THE PROGRESS OF NATURAL HAZARD RESILIENT STRUCTURES

EDITOR'S CHOICE BEST PAPER, *JOURNAL OF STRUCTURE AND INFRASTRUCTURE*

for "Capacity Loss Evaluation of Reinforced Concrete Bridges Located in Extreme Chloride-Laden Environments," coauthored with Alice Alipour and Behrouz Shafei

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## ADAM SOBEL

*Professor of Applied Physics and Applied Mathematics and of Earth and Environmental Sciences*

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BOOK PUBLISHED

*Storm Surge: Hurricane Sandy, Our Changing Climate, and Extreme Weather of the Past and Future* (HarperWave, October 2014)

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## PONISSERIL SOMASUNDARAN

*LaVon Duddleson Krumb Professor of Mineral Engineering in the Department of Earth and Environmental Engineering*

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BOOK PUBLISHED

*Oil Spill Remediation: Colloid Chemistry-Based Principles and Solutions*

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## WAICHING "STEVE" SUN

*Assistant Professor of Civil Engineering and Engineering Mechanics*

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CATERPILLAR BEST PAPER PRIZE

for "A Multiscale DEM-LBM Analysis on Permeability Evolutions inside a Dilatant Shear Band," coauthored with Matthew Kuhn and John Rudnicki in *Acta Geotechnica*

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# Scholarly Achievement and Leadership

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## GORDANA VUNJAK-NOVAKOVIC

*Mikati Foundation Professor of Biomedical Engineering and Professor of Medical Sciences (in Medicine)*

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KEYNOTE SPEAKER, ADVANCES IN TISSUE ENGINEERING

DISTINGUISHED SPEAKER, UNIVERSITY OF MIAMI

HIGHLIGHTED PAPER, *NATURE REVIEWS (RHEUMATOLOGY)*  
for “Large, Stratified, and Mechanically Functional Human Cartilage Grown in vitro by Mesenchymal Condensation,” coauthored with S. Bhumiratana et al.

EDITOR’S CHOICE, *SCIENCE TRANSLATIONAL MEDICINE*  
for “Bioengineered Human Tumor within a Bone Niche,”  
coauthored with A. Villasante and A. Marturano

MOST CITED PAPER, *JOURNAL OF ORTHOPAEDIC RESEARCH*  
“Bioreactor Cultivation Conditions Modulate the Composition and Mechanical Properties of Tissue-Engineered Cartilage” by Vunjak-Novakovic et al. was one of the top 10 most cited articles in the 30-year history of the *Journal*.



## GIL ZUSSMAN

*Associate Professor of Electrical Engineering*

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MEMBER, IFIP WORKING GROUP 7.3 ON COMPUTER SYSTEMS MODELING

KEYNOTE SPEAKER, “IEEE GLOBAL CONFERENCE ON SIGNAL AND INFORMATION PROCESSING (GLOBALSIP 2013) SYMPOSIUM ON ENERGY HARVESTING AND GREEN WIRELESS COMMUNICATIONS”



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The City University of New York School of Engineering and Applied Science  
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ALM





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