Department of Electrical and Computer Engineering

Lawrence Pileggi, Head
James Bain, Associate Head, Academic Affairs
Jose Moura, Associate Head, Research & Strategic Initiatives

www.ece.cmu.edu (http://www.ece.cmu.edu)

The field of electrical and computer engineering encompasses a remarkably diverse and fertile set of technological areas, including analog and digital electronics, computer architecture, computer-aided design and manufacturing of VLSI/ULSI circuits, intelligent robotic systems, computer-based control systems, telecommunications and computer networking, wireless communication systems, signal and information processing and multimedia systems, solid state physics and devices, microelectromechanical systems (MEMS), electromagnetic and electromechanical systems, data storage systems, embedded systems, distributed computing, mobile computing, real-time software, digital signal processing, and optical data processing. The extraordinary advances in the field during the last fifty years have impacted nearly every aspect of human activity. These advances have resulted not only in advanced computer systems but also in consumer products such as “smart” cars, programmable dishwashers and other home appliances, cell phones and mobile computing systems, video games, home security systems, advanced medical systems for imaging, diagnosis, testing and monitoring. Systems and products such as these serve to enhance our quality of life and have also served as the basis for significant economic activity. In short, the field of electrical and computer engineering has become central to society as we know it.

The Department of Electrical and Computer Engineering at Carnegie Mellon is actively engaged in education and research at the forefront of these new technologies. Because of the diverse and broad nature of the field and the significant growth in knowledge in each of its sub areas, it is no longer possible for any single individual to know all aspects of electrical and computer engineering. Nevertheless, it is important that all electrical and computer engineers have a solid knowledge of the fundamentals with sufficient depth and breadth. Society is placing increasing demands on our graduates to try their skills in new contexts. It is also placing increasing value on engineers who can cross traditional boundaries between disciplines, and who can intelligently evaluate the broader consequences of their actions. Our curriculum is designed to produce world-class engineers who can meet these challenges.

Educational Outcomes and Objectives

The B.S. in Electrical and Computer Engineering is a broad and highly flexible degree program structured to provide students with the smallest set of constraints consistent with a rich and comprehensive view of the profession. It is accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org. Students are encouraged and stimulated to explore multiple areas of theory and application. The Faculty of Electrical and Computer Engineering have adopted the following outcomes from ABET and have established the following objectives for the B.S. in Electrical and Computer Engineering curriculum:

ECE Education Objectives

The ECE program objectives are shown below. They represent our vision for what our students will be doing in their engineering careers five years after they have graduated. The principal behaviors we seek to foster in our students are expertise, innovation and leadership. Our graduates will be:

Experts
- They will solve problems by applying ECE fundamentals
- Their solutions will reflect depth of understanding in their sophistication.
- Their solutions will reflect breadth of understanding by drawing on multiple disciplines.

Innovators
- They will demonstrate creativity in their engineering practice.
- They will consider holistic systems-oriented approaches in their designs.
- They will think strategically in their planning and execution.

Leaders
- They will take initiative, and demonstrate resourcefulness.
- They will collaborate in multidisciplinary teams.
- They will be leaders in their organizations, their profession and in society.

An ability to apply knowledge of mathematics, science and engineering.
2. An ability to design and conduct experiments, as well as to analyze and interpret data.
3. An ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability and sustainability.
4. An ability to function in multi-disciplinary teams.
5. An ability to identify, formulate and solve engineering problems.
6. An understanding of professional and ethical responsibilities.
7. An ability to communicate effectively.
8. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context.
9. A recognition of the need for, and an ability to engage in life-long learning.
10. A knowledge of contemporary issues.
11. An ability to use the techniques, skills and modern engineering tools necessary for engineering practice.

Three dimensions of objectives for our graduates.
Curriculum Overview

In addition to the Carnegie Institute of Technology general education (http://coursecatalog.web.cmu.edu/carnegieinstituteoftechnology/#generaleducationtext) and First Year requirements (http://coursecatalog.web.cmu.edu/carnegieinstituteoftechnology/#firstyearforengineeringstudentstext) (143 units), the B.S. in Electrical and Computer Engineering requires: 15-122 Principles of Imperative Computation (10 units), Physics II (12 units), two math or science electives (18 units), a Probability and Statistics course (9 units), 109 units of Electrical and Computer Engineering coursework, and 2 math co-requisites (22 units). The remaining units needed to reach the 379 required to graduate are Free Electives (56 units).

The Electrical and Computer Engineering coursework is divided into the categories of Core, Area Courses, Coverage, and Capstone Design. The Core consists of five courses (18-100 Introduction to Electrical and Computer Engineering, 18-220 Electronic Devices and Analog Circuits, 18-240 Structure and Design of Digital Systems, 18-213 Introduction to Computer Systems, and 18-290 Signals and Systems). There are additional co-requisites: 18-202 Mathematical Foundations of Electrical Engineering, 21-127 Concepts of Mathematics and 33-142 Physics II for Engineering and Physics Students, that are required to be taken with the core. These courses provide the fundamental knowledge-base upon which all other electrical and computer engineering courses are built.

Students generally take 18-100 Introduction to Electrical and Computer Engineering during their first year, while they start the remaining courses in the Core in their sophomore year, ideally completing them by the end of the junior year. It is recommended that students do not take more than two core courses in the same semester. Although the core courses (and their co-requisites) may be taken in any order, students generally first take the course in their primary area of interest, which gives added flexibility to later course selection in related areas.

Students are required to complete a seminar course during the fall semester of the sophomore year. This course, 18-200 ECE Sophomore Seminar, introduces students to the many areas within ECE and helps them decide which areas are of primary interest to them.

To satisfy the ECE Area Courses Requirement (http://www.ece.cmu.edu/programs-admissions/bachelors/academic-guide/#collapse-4), at least two Area courses must be completed from one of the following five principal areas in ECE (24 units):

- **Device Sciences and Nanofabrication**: Solid State Physics, Electromagnetic Fields and Waves, Magnetics, Optics, etc.;
- **Signals and Systems**: Digital Signal Processing, Communication Systems, Control Systems, etc.;
- **Circuits**: Analog and Digital Circuits, Integrated Circuit Design, etc.;
- **Computer Hardware**: Logic Design, Computer Architecture, Networks, etc.; and
- **Computer Software**: Programming, Data Structures, Compilers, Operating Systems, etc.

One additional course from a second area must be taken (12 units)

The Coverage requirement is satisfied by taking any additional ECE course(s) or an approved Computer Science course (see the ECE website (http://www.ece.cmu.edu/programs-admissions/bachelors/academic-guide/#collapse-5) for the list of approved coverage courses) totaling at least 12 units.

All students are required to take a Capstone Design course. The Capstone Design course is a senior-level project course (numbered 18-5XX) in which students participate in a semester-long design experience on a team with other students. Students learn project management skills, create oral presentations, write reports, and discuss the broader social and ethical dimensions of ECE. At the completion of the course students will conclude with a demonstration of their product and will be able to explain the design process. Current Capstone Design courses are listed on the ECE Department website (http://www.ece.cmu.edu/programs-admissions/bachelors/academic-guide/#collapse-6).

B.S. Curriculum

Minimum units required for B.S. in Electrical and Computer Engineering 379

For detailed information and regulations of the curriculum along with the degree requirements and the most recent version of the ECE curriculum and course descriptions, please refer to the ECE Academic Guide (http://www.ece.cmu.edu/programs-admissions/bachelors/academic-guide/).

University Requirement

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>99-101</td>
<td>Computing @ Carnegie Mellon</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

CIT Requirements (see CIT section of the catalog for specifics (http://coursecatalog.web.cmu.edu/carnegieinstituteoftechnology/)):

CIT General Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Two semesters of calculus</td>
<td>20</td>
</tr>
<tr>
<td>33-141</td>
<td>Physics I for Engineering Students **</td>
<td>12</td>
</tr>
<tr>
<td>or 33-131</td>
<td>Matter and Interaction I</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>44</td>
</tr>
</tbody>
</table>

** 33-141/33-142 is the recommended course sequence, although 33-131/33-132 will also satisfy this requirement.

Specific ECE requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-100</td>
<td>Introduction to Electrical and Computer Engineering (generally taken during the freshman year)</td>
<td>12</td>
</tr>
<tr>
<td>18-200</td>
<td>ECE Sophomore Seminar</td>
<td>1</td>
</tr>
<tr>
<td>18-220</td>
<td>Electronic Devices and Analog Circuits</td>
<td>12</td>
</tr>
<tr>
<td>33-142</td>
<td>Physics II for Engineering and Physics Students (co-requisite for 18-220)</td>
<td>12</td>
</tr>
<tr>
<td>18-202</td>
<td>Mathematical Foundations of Electrical Engineering (co-requisite for 18-220)</td>
<td>12</td>
</tr>
<tr>
<td>18-290</td>
<td>Signals and Systems</td>
<td>12</td>
</tr>
<tr>
<td>18-290</td>
<td>Mathematical Foundations of Electrical Engineering (co-requisite for 18-290)</td>
<td>12</td>
</tr>
<tr>
<td>18-240</td>
<td>Structure and Design of Digital Systems</td>
<td>12</td>
</tr>
<tr>
<td>21-127</td>
<td>Concepts of Mathematics</td>
<td>12</td>
</tr>
<tr>
<td>18-213</td>
<td>Introduction to Computer Systems</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Two Area Courses from 1 of the 5 Areas within ECE</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>One additional Area Course from a second Area</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>One Coverage Course (any additional ECE course or Approved CS course as listed on the ECE web site)</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>One Capstone Design Course (any 18-5xx course)</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td></td>
<td>121</td>
</tr>
</tbody>
</table>

Other ECE Requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-112</td>
<td>Fundamentals of Programming and Computer Science</td>
<td>12</td>
</tr>
<tr>
<td>15-122</td>
<td>Principles of Imperative Computation</td>
<td>10</td>
</tr>
<tr>
<td>36-217</td>
<td>Probability Theory and Random Processes</td>
<td>9</td>
</tr>
<tr>
<td>or 36-225</td>
<td>Introduction to Probability Theory</td>
<td>9</td>
</tr>
<tr>
<td>Free Electives</td>
<td></td>
<td>56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>105</td>
</tr>
</tbody>
</table>

Math/Science Electives

The Math/Science electives are satisfied with any course from The Mellon College of Science or The Department of Statistics and Data Science except for: 100-level courses in Mathematics or Statistics, and courses designed for non-science or engineering majors, such as (but not limited to) 03-132, 09-103, 09-108, 21-240, 21-257, 33-115, 33-124, 36-201, 36-202, 36-207 or 36-208. Although shown in the Junior and year, these courses may be taken at any time. Mathematics courses of particular interest to students in ECE area.
21-228  Discrete Mathematics  9
21-241  Matrices and Linear Transformations  10
21-259  Calculus in Three Dimensions  9
21-260  Differential Equations  9

Free Electives  56 units

A Free Elective is defined as any graded course offered by any academic unit of the university (including research institutes such as the Robotics Institute (http://www.ri.cmu.edu/) and the Software Engineering Institute (http://www.sei.cmu.edu/)). A total of at least 56 units of Free Electives must be taken.

Up to 9 units of Student Taught Courses (StuCO) and Physical Education courses, or other courses taken as Pass/Fail, may also be used toward Free Electives.

Transfer of courses from other high-quality universities may be accepted through submission of the Transfer Credit Request form on the CIT web page (https://engineering.cmu.edu/education/academic-policies/undergraduate-policies/transfer_credit/) or see the CIT website (https://engineering.cmu.edu/education/academic-policies/transfer-credit.html) for further information regarding the process.

The large number of units without categorical constraints provides the student, in consultation with their Advisor or Mentor, with the flexibility to design a rich educational program.

Sample Curriculum

The following table shows a possible roadmap through our broad and flexible curriculum:

<table>
<thead>
<tr>
<th>Freshman</th>
<th>Sophomore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>Spring</td>
</tr>
<tr>
<td>18-100 Introduction to Electrical and Computer Engineering</td>
<td>Introductory Engineering course</td>
</tr>
<tr>
<td>76-101 Interpretation and Argument</td>
<td>General Education course</td>
</tr>
<tr>
<td>99-101 Computing @ Carnegie Mellon</td>
<td>33-142 Physics II for Engineering and Physics Students</td>
</tr>
<tr>
<td></td>
<td>39-210 Experiential Learning I</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Junior</th>
<th>Senior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>Spring</td>
</tr>
<tr>
<td>18-2xx ECE Core course</td>
<td>18-2xx ECE Core course</td>
</tr>
<tr>
<td>18-3xx/4xx ECE Area 1 course (first course in Area)</td>
<td>18-3xx/4xx ECE Area 1 course (either 2nd course from Area 1 or the Area 2 course)</td>
</tr>
<tr>
<td>General Education course</td>
<td>Math/Science Elective 2</td>
</tr>
<tr>
<td>Math/Science elective 1</td>
<td>General Education course</td>
</tr>
<tr>
<td>Free Elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td>39-310 Experiential Learning III</td>
<td></td>
</tr>
</tbody>
</table>

Academic Policies

Policy on ECE Coverage Courses with Fewer than 12 Units

The basic curriculum requirements for Area courses, Coverage and Capstone Design are stated in terms of courses rather than units. The recommended total of 60 units for these categories is determined by assuming that each course is 12 units. In the event that courses with fewer than 12 units are used to satisfy some or all of these requirements, additional courses from the ECE coverage lists must be taken until the total units in ECE courses beyond the core meets or exceeds 60 units. Any ECE coverage course is acceptable, and any excess units beyond the required 60 may be counted as free elective credit.

QPA Requirement and Overload Policy

An overload is defined as any schedule with more than 54 units in one semester. A student will only be permitted to overload by 12 units if she or he achieved an overall QPA of at least 3.5 out of 4.0. If the student’s overall QPA is below a 3.5, then the QPA of the previous semester for which he or she registering will instead be utilized. If that QPA is at least a 3.5 then the student will be permitted to Overload.

Grade Policy for Math Courses

1. CIT states that all mathematics (21-xxx) courses required* for the engineering degree taken at Carnegie Mellon must have a minimum grade of C in order to be counted toward the graduation requirement for the BS engineering degree.
2. A minimum grade of C must be achieved in any required mathematics (21-xxx) course that is a prerequisite for the next higher level required mathematics (21-xxx) course.
3. In addition, ECE requires that 18-202 Mathematical Foundations of Electrical Engineering must be completed with a grade of C or better.

*Elective mathematics courses (like the math/science electives required for ECE) are not included in this policy

Pass/Fail policy

Up to 9 units of StuCo and/or Physical Education courses or other courses taken as Pass/Fail may be used toward Free Electives. ECE core courses may not be taken as pass/fail. ECE project-based courses (including capstone design courses) may not be taken pass/fail. No ECE requirements may be fulfilled using a pass/fail course (except for 99-10x and 18-200)

Other Graduation Requirements

To be eligible to graduate, undergraduate students must complete all course requirements for their program with a cumulative Quality Point Average of at least 2.0. For undergraduate students who enrolled at Carnegie Mellon as freshmen and whose freshmen grades cause the cumulative QPA to fall below 2.0, this requirement is modified to be a cumulative QPA of at least 2.0 for all courses taken after the freshman year. Note, however, the cumulative QPA that appears on the student’s final transcript will be calculated based on all grades in all courses taken, including freshman year. Students are encouraged to confirm all graduation requirements with their academic advisor.

CIT has the following requirement for graduation. “Students must complete the requirements for their specified degrees with a cumulative quality point average of 2.00 or higher for all courses after the freshman year [this is the CIT QPA on the Academic Audit]. In addition, a student is expected to achieve a cumulative quality point average of 2.00 in a series of core departmental courses.”

In ECE, this means that the student must complete 18-100 Introduction to Electrical and Computer Engineering, ECE Core, Area Courses, Coverage, and Capstone Design courses with a minimum QPA of 2.0 to graduate. When more than one possibility exists for meeting a specific requirement (e.g., Area Course), the courses used for calculating the ECE QPA will be chosen so as to maximize the QPA. Similarly, when an ECE course is retaken, the better grade will be used in the computation of the minimum QPA for the ECE QPA requirement to graduate.

Other Opportunities in ECE

ECE Cooperative Education Program

Our Cooperative Education Program invites students to gain valuable experience in employment that relates directly to their major and career goals. At the same time, it provides employers with opportunities to evaluate students as potential full-time employees, while having them complete meaningful projects. Participation in this program is voluntary, and obtaining a cooperative education assignment is competitive.

Due to federal restrictions on student work experiences, international students are not eligible for co-ops. Please visit the ECE CPT page (http://www.ece.cmu.edu/programs-admissions/bachelors/cpt.html) for information regarding international student internships.

The co-op experience

We require a minimum of eight months of co-op experience to identify the work experience as a co-op. Students must have minimally completed their sophomore year to qualify for application to a co-op and should connect
Integrated M.S./B.S. Degrees Program

The Integrated Master’s/Bachelor’s program (http://www.ece.cmu.edu/programs-admissions/bachelors/cooperative-education-program.html) or the Career and Professional Development Center (http://www.cmu.edu/career/).

Integrated M.S./B.S. Degrees Program

The Integrated Master’s/Bachelor’s program (http://www.ece.cmu.edu/programs-admissions/bachelors/cooperative-education-program.html) or the Career and Professional Development Center (http://www.cmu.edu/career/) is an exciting opportunity for students who excel academically to achieve not just a Bachelor’s degree in ECE, but also a Master’s degree through our Professional M.S degree program-without needing to apply separately. This means no application fee, and no need to take the GRE (Graduate Record Exam). In order to be awarded the MS degree in the IMB program, the student must also earn their BS degree, either simultaneously with the M.S. degree or at least one semester prior to the awarding of the M.S. degree. If a course is eligible for the MS degree but must be used to complete the BS degree, the BS degree takes priority over the MS degree.

If a student is at least a 2nd semester junior, has completed at least 270 units and has at least an overall 3.00 QPA, he or she is guaranteed admission into the Professional M.S degree in ECE through the IMB program. To be officially admitted, the student must complete the IMB Program form.

If a student does not meet the exact overall 3.00 QPA requirement, he or she is eligible to petition for his or her admission into the IMB program during the BS degree, including minors, additional majors or dual degrees.

Residency requirements and financial impacts:

Once a student in the IMB program has completed all the requirements for the BS degree, he or she may become a graduate (Masters) student. To do this, the student’s undergraduate degree is certified, and that student officially graduates with the BS degree.

If a student takes more than 8 semesters to complete both the BS and MS degrees, then he or she must be a graduate student for at least one semester before graduating with the MS degree.

If a student takes more than 8 semesters to complete both the BS and MS degrees, then he or she must be a graduate student for at least one semester before graduating with the MS degree.

To determine the most appropriate time for an undergraduate student to become a graduate student, he or she should consult with Enrollment Services to understand how becoming a graduate student will affect financial aid, and with his or her academic advisor to determine a course schedule. When a student is a graduate student through the IMB program, the department is able to provide some financial assistance through Teaching Assistantships. Please see the ECE web site (http://www.ece.cmu.edu/programs-admissions/integrated/) for further information regarding this financial assistance.

Faculty

GEORGE AMVROSIADIS, Assistant Research Professor of Electrical and Computer Engineering – Ph.D., University of Toronto, Canada; Carnegie Mellon, 2018.

JIM BAIN, Associate Department Head for Academic Affairs and Professor of Electrical and Computer Engineering and Materials Science Engineering; Associate Director, DSSC – Ph.D., Stanford University; Carnegie Mellon, 1993.

LUJO BAUER, Associate Professor of Electrical and Computer Engineering – Ph.D., Princeton University; Carnegie Mellon, 2005.


SHAWN BLANTON, Trustee Professor of Electrical and Computer Engineering – Ph.D., University of Michigan; Carnegie Mellon, 1995.


L. RICHARD CARLEY, ST Microelectronics Professor of Electrical and Computer Engineering; Affiliated Faculty, DSSC – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 1984.

MAYSAM CHAMANZAR, Assistant Professor of Electrical and Computer Engineering – Ph.D., Georgia Institute of Technology; Carnegie Mellon, 2015.

YUEJIE CHI, Associate Professor of Electrical and Computer Engineering – Ph.D., Princeton University; Carnegie Mellon, 2018.

ANUPAM DATTA, Assistant Professor of Electrical and Computer Engineering; Carnegie Mellon University Silicon Valley – Ph.D., Stanford University; Carnegie Mellon, 2007.

GIULIA FANTI, Assistant Professor of Electrical and Computer Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 1994.

FRANZ FRANCHETTI, Professor of Electrical and Computer Engineering; Faculty Director FT Services – Ph.D., Vienna University of Technology; Carnegie Mellon, 2001.

GREGORY R. GANGER, Jatras Professor of Electrical and Computer Engineering and Computer Science; Director Parallel Data Lab – Ph.D., University of California at Berkeley; Carnegie Mellon, 1994.

AMINATA GARBA, Assistant Teaching Professor of Electrical and Computer Engineering; Carnegie Mellon University Africa – Ph.D., McGill University; Carnegie Mellon, 2013.

PHILIP GIBBONS, Professor of Electrical and Computer Engineering and Computer Science – Ph.D., Cornell University; Carnegie Mellon, 2017.

GARY FEDDER, Howard M. Wilkoff Professor of Electrical and Computer Engineering Co-Director, MEMS Affiliated Faculty, DSSC – Ph.D., University of California at Berkeley; Carnegie Mellon, 1994.

CARLEE JOE-WONG, Assistant Professor of Electrical and Computer Engineering; Carnegie Mellon, 2016–

ANUPAM DATTA, Professor of Electrical and Computer Engineering; Carnegie Mellon, 2001–

CARLEE JOE-WONG, Assistant Professor of Electrical and Computer Engineering; Carnegie Mellon, 2018–

JAMES HOE, Professor of Electrical and Computer Engineering – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2000–

BOB IANNUCCI, Distinguished Service Professor of Electrical and Computer Engineering; Director, CyLab Mobility Research Center; Carnegie Mellon University Silicon Valley – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2012–

JOVAN ILIC, Associate Teaching Professor of Electrical and Computer Engineering – Ph.D., The University of Tennessee; Carnegie Mellon, 2014–

LIMIN JIA, Associate Research Professor of Electrical and Computer Engineering; Affiliated Faculty, CyLab; Ph.D., Princeton University; Carnegie Mellon, 2013–

JAMES HOE, Professor of Electrical and Computer Engineering – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2000–

LUJO BAUER, Associate Professor of Electrical and Computer Engineering – Ph.D., Princeton University; Carnegie Mellon, 2005–

VIJAAKUMAR BHAGAVATULA, U.A. and Helen Witaker Professor of Electrical and Computer Engineering, Affiliated Faculty, DSSC, Director CMU – Africa – Ph.D., Carnegie Mellon University; Carnegie Mellon, 1982–

SHAWN BLANTON, Trustee Professor of Electrical and Computer Engineering – Ph.D., University of Michigan; Carnegie Mellon, 1995–

DAVID BRUMLEY, Professor of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2008–

L. RICHARD CARLEY, ST Microelectronics Professor of Electrical and Computer Engineering; Affiliated Faculty, DSSC – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 1984–

MAYSAM CHAMANZAR, Assistant Professor of Electrical and Computer Engineering – Ph.D., Georgia Institute of Technology; Carnegie Mellon, 2015–

YUEJIE CHI, Associate Professor of Electrical and Computer Engineering – Ph.D., Princeton University; Carnegie Mellon, 2018–

ANUPAM DATTA, Assistant Professor of Electrical and Computer Engineering; Carnegie Mellon University Silicon Valley – Ph.D., Stanford University; Carnegie Mellon, 2007–

GIULIA FANTI, Assistant Professor of Electrical and Computer Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 1994–

FRANZ FRANCHETTI, Professor of Electrical and Computer Engineering; Faculty Director FT Services – Ph.D., Vienna University of Technology; Carnegie Mellon, 2001–

GREGORY R. GANGER, Jatras Professor of Electrical and Computer Engineering and Computer Science; Director Parallel Data Lab – Ph.D., University of Michigan; Carnegie Mellon, 1997–

AMINATA GARBA, Assistant Teaching Professor of Electrical and Computer Engineering; Carnegie Mellon University Africa – Ph.D., McGill University; Carnegie Mellon, 2013–

SAUGATA GHOSE, Systems Scientist of Electrical and Computer Engineering – Ph.D., Cornell University; Carnegie Mellon, 2017–

PHILIP GIBBONS, Professor of Electrical and Computer Engineering and Computer Science – Ph.D., University of California at Berkeley; Carnegie Mellon, 2015–

VIRGIL GILGOR, Professor of Electrical and Computer Engineering; Co-Director CyLab – Ph.D., University of California, Berkeley; Carnegie Mellon, 2008–

PULKIT GROVER, Associate Professor of Electrical and Computer Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 2013–

JAMES HOE, Professor of Electrical and Computer Engineering – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2000–

BOB IANNUCCI, Distinguished Service Professor of Electrical and Computer Engineering; Director, CyLab Mobility Research Center; Carnegie Mellon University Silicon Valley – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2012–

JOVAN ILIC, Associate Teaching Professor of Electrical and Computer Engineering – Ph.D., The University of Tennessee; Carnegie Mellon, 2014–

LIMIN JIA, Associate Research Professor of Electrical and Computer Engineering; Affiliated Faculty, CyLab; Ph.D., Princeton University; Carnegie Mellon, 2013–

CARLEE JOE-WONG, Assistant Professor of Electrical and Computer Engineering; Carnegie Mellon University Silicon Valley – Ph.D., Princeton University; Carnegie Mellon, 2016–

GAURI JOSHI, Assistant Professor of Electrical and Computer Engineering – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2017–

SOUJNMYA KAR, Associate Professor of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2011–
Department of Electrical and Computer Engineering

HYONG S. KIM, Drew D. Perkins Professor of Electrical and Computer Engineering; Director, CMU-Thailand - Ph.D., University of Toronto; Carnegie Mellon, 1990–

PHILIP J. KOOPMAN, Associate Professor of Electrical and Computer Engineering and Computer Science - Ph.D., Carnegie Mellon University; Carnegie Mellon, 1989–

SWARUN S. KUMAR, Assistant Professor of Electrical and Computer Engineering - Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2015–

IAN LANE, Associate Research Professor of Electrical and Computer Engineering; Carnegie Mellon University Silicon Valley - Ph.D., Kyoto University; Carnegie Mellon, 2011–

QING LI, Assistant Professor of Electrical and Computer Engineering – Ph.D., Georgia Institute of Technology; Carnegie Mellon, 2018–

TZE MENG LOW, Assistant Research Professor of Electrical and Computer Engineering - Ph.D., University of Texas at Austin; Carnegie Mellon, 2013–

BRANDON LUCIA, Assistant Professor of Electrical and Computer Engineering - Ph.D., University of Washington; Carnegie Mellon, 2014–

KEN MAI, Principal Systems Scientist of Electrical and Computer Engineering - Ph.D., Stanford University; Carnegie Mellon, 2005–

DIANA MARCULESCU, David Edward Schramm Professor of Electrical and Computer Engineering - Ph.D., University of Southern California; Carnegie Mellon, 2000–

RADU MARCULESCU, Kavčič-Moura Professor of Electrical and Computer Engineering - Ph.D., University of Southern California; Carnegie Mellon, 2000–

PIOTR MARDZIEL, Systems Scientist of Electrical and Computer Engineering - Ph.D., University of Maryland, College Park; Carnegie Mellon, 2018–

JAVAD MOHAMMADI, Systems Scientist of Electrical and Computer Engineering - Ph.D., Carnegie Mellon University; Carnegie Mellon, 2016–

M. GRANGER MORGAN, Professor of Electrical and Computer Engineering; Harvey White University Professor of Engineering and Public Policy - Ph.D., University of California, San Diego; Carnegie Mellon, 1974–

JOSE M. F. MOURA, Associate Department Head for Research & Strategic Initiatives, Philip L. and Marsha Dowd University Professor of Electrical and Computer Engineering - Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 1986–

LINDA MOYA, Assistant Teaching Professor of Electrical and Computer Engineering; Social and Decision Sciences - Ph.D., Carnegie Mellon University; Carnegie Mellon, 2014–

TAMAL MUKHERJEE, Professor of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 1996–

WILLIAM NACE, Associate Teaching Professor of Electrical and Computer Engineering - Ph.D., Carnegie Mellon University; Carnegie Mellon, 2008–

PRIYA NARASIMHAN, Professor of Electrical and Computer Engineering - Ph.D., University of California at Santa Barbara; Carnegie Mellon, 2001–

ROHIT NEGL, Professor of Electrical and Computer Engineering – Ph.D., Stanford University; Carnegie Mellon, 2000–

DAVID O’HALLARON, Professor of Electrical and Computer Engineering and Computer Science - Ph.D., University of Virginia; Carnegie Mellon, 1989–

JEYANANDH PARAMESH, Associate Professor of Electrical and Computer Engineering - Ph.D., University of Washington; Carnegie Mellon, 2007–

BARRY RAWN, Associate Teaching Professor of Electrical and Computer Engineering – Ph.D., University of Toronto, Canada; Carnegie Mellon, 2018–

ANTHONY ROWE, Associate Professor of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2009–

ASWIN SANKARANARAYANAN, Associate Professor of Electrical and Computer Engineering – Ph.D., University of Maryland; Carnegie Mellon, 2013–

MARIOS SAVVIDES, Research Professor of Electrical and Computer Engineering; Bossa Nova Robotics Professor of Artificial Intelligence, Director, CyLab Biometrics Center - Ph.D., Carnegie Mellon University; Carnegie Mellon, 2005–

VYAS SEKAR, Associate Professor of Electrical and Computer Engineering - Ph.D., Carnegie Mellon University; Carnegie Mellon, 2013–

JOHN SHEN, Professor of Electrical and Computer Engineering; Carnegie Mellon University Silicon Valley - Ph.D., University of Southern California; Carnegie Mellon, 2015–

DANIEL P. SIEWIOREK, Buhl University Professor of Electrical and Computer Engineering; Human Computer Interaction Institute of Computer Science Department - Ph.D., Stanford University; Carnegie Mellon, 1972–

VIRGINIA SMITH, Assistant Professor of Electrical and Computer Engineering - Ph.D., University of California, Berkeley; Carnegie Mellon, 2016–

PETER STEENKISTE, Professor of Electrical and Computer Engineering and Computer Science - Ph.D., Stanford University; Carnegie Mellon, 1987–

RICHARD STERN, Professor of Electrical and Computer Engineering, Language Technologies Institute, Computer Science, and BioMedical Engineering; Lecturer, Music - Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 1977–

ANDRZEJ J. STROWIAS, Keithley Professor of Electrical and Computer Engineering - Ph.D., Carnegie Mellon University; Carnegie Mellon, 1983–

THOMAS SULLIVAN, Teaching Professor of Electrical and Computer Engineering; Lecturer, Music - Ph.D., Carnegie Mellon University; Carnegie Mellon, 1996–

PATRICK TAGUE, Associate Research Professor of Electrical and Computer Engineering, CyLab and Information Networking Institute, Carnegie Mellon University Silicon Valley - Ph.D., University of Washington; Carnegie Mellon, 2009–

QIZAN TONGUZ, Professor of Electrical and Computer Engineering - Ph.D., Rutgers University; Carnegie Mellon, 2000–

ELIAS TOWE, Professor of Electrical and Computer Engineering; Grobstein Memorial Professor of Materials Science and Engineering - Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2001–

DAVID VERNON, Professor of Electrical and Computer Engineering; Carnegie Mellon University Africa - Ph.D., Trinity College Dublin; Carnegie Mellon, 2013–

OSMAN YAĞAN, Associate Research Professor of Electrical and Computer Engineering - Ph.D., University of Maryland, College Park; Carnegie Mellon, 2014–

BYRON YU, Associate Professor of Electrical and Computer Engineering; Assistant Professor BioMedical Engineering - Ph.D., Stanford University; Carnegie Mellon, 2009–

JIA ZHANG, Associate Teaching Professor of Electrical and Computer Engineering; Carnegie Mellon University Silicon Valley - Ph.D., University of Illinois, Chicago; Carnegie Mellon, 2014–

PEI ZHANG, Associate Research Professor of Electrical and Computer Engineering; Carnegie Mellon University Silicon Valley - Ph.D., Princeton University; Carnegie Mellon, 2008–

XU ZHANG, Assistant Professor of Electrical and Computer Engineering - Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2019–

JIAN-GANG ZHU, ABB Professor of Electrical and Computer Engineering; Director, DSSC; Professor of Materials Science and Engineering - Ph.D., University of California, San Diego; Carnegie Mellon, 1997–

BARRY RAWN, Associate Teaching Professor of Electrical and Computer Engineering – Ph.D., University of Toronto, Canada; Carnegie Mellon, 2018–

ANTHONY ROWE, Associate Professor of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2009–

ASWIN SANKARANARAYANAN, Associate Professor of Electrical and Computer Engineering – Ph.D., University of Maryland; Carnegie Mellon, 2013–

MARIOS SAVVIDES, Research Professor of Electrical and Computer Engineering; Bossa Nova Robotics Professor of Artificial Intelligence, Director, CyLab Biometrics Center - Ph.D., Carnegie Mellon University; Carnegie Mellon, 2005–

VYAS SEKAR, Associate Professor of Electrical and Computer Engineering - Ph.D., Carnegie Mellon University; Carnegie Mellon, 2013–

JOHN SHEN, Professor of Electrical and Computer Engineering; Carnegie Mellon University Silicon Valley - Ph.D., University of Southern California; Carnegie Mellon, 2015–

DANIEL P. SIEWIOREK, Buhl University Professor of Electrical and Computer Engineering; Human Computer Interaction Institute of Computer Science Department - Ph.D., Stanford University; Carnegie Mellon, 1972–

VIRGINIA SMITH, Assistant Professor of Electrical and Computer Engineering - Ph.D., University of California, Berkeley; Carnegie Mellon, 2016–

PETER STEENKISTE, Professor of Electrical and Computer Engineering and Computer Science - Ph.D., Stanford University; Carnegie Mellon, 1987–

RICHARD STERN, Professor of Electrical and Computer Engineering, Language Technologies Institute, Computer Science, and BioMedical Engineering; Lecturer, Music - Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 1977–

ANDRZEJ J. STROWIAS, Keithley Professor of Electrical and Computer Engineering - Ph.D., Carnegie Mellon University; Carnegie Mellon, 1983–

THOMAS SULLIVAN, Teaching Professor of Electrical and Computer Engineering; Lecturer, Music - Ph.D., Carnegie Mellon University; Carnegie Mellon, 1996–

PATRICK TAGUE, Associate Research Professor of Electrical and Computer Engineering, CyLab and Information Networking Institute, Carnegie Mellon University Silicon Valley - Ph.D., University of Washington; Carnegie Mellon, 2009–

QIZAN TONGUZ, Professor of Electrical and Computer Engineering - Ph.D., Rutgers University; Carnegie Mellon, 2000–

ELIAS TOWE, Professor of Electrical and Computer Engineering; Grobstein Memorial Professor of Materials Science and Engineering - Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2001–

DAVID VERNON, Professor of Electrical and Computer Engineering; Carnegie Mellon University Africa - Ph.D., Trinity College Dublin; Carnegie Mellon, 2017–

OSMAN YAĞAN, Associate Research Professor of Electrical and Computer Engineering - Ph.D., University of Maryland, College Park; Carnegie Mellon, 2013–

BYRON YU, Associate Professor of Electrical and Computer Engineering; Assistant Professor BioMedical Engineering - Ph.D., Stanford University; Carnegie Mellon, 2009–

JIA ZHANG, Associate Teaching Professor of Electrical and Computer Engineering; Carnegie Mellon University Silicon Valley - Ph.D., University of Illinois, Chicago; Carnegie Mellon, 2014–

PEI ZHANG, Associate Research Professor of Electrical and Computer Engineering; Carnegie Mellon University Silicon Valley - Ph.D., Princeton University; Carnegie Mellon, 2008–

XU ZHANG, Assistant Professor of Electrical and Computer Engineering - Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2019–

JIAN-GANG ZHU, ABB Professor of Electrical and Computer Engineering; Director, DSSC; Professor of Materials Science and Engineering - Ph.D., University of California, San Diego; Carnegie Mellon, 1997–

Courses:

YURVRAJ AGARWAL, Assistant Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering - Ph.D., University of California, San Diego; Carnegie Mellon, 2013–

NATHAN BECKMANN, Assistant Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2017–
MARIO BERGES, Assistant Professor of Civil and Environmental Engineering; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2017–

TIMOTHY X. BROWN, Distinguished Service Professor, Engineering and Public Policy, Civil and Environmental Engineering; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., California Institute of Technology; Carnegie Mellon, 2013–

RANDELL E. BRYANT, University Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 1984–

KATHLEEN CARLEY, Professor of Computer Science, Institute for Software Research; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Harvard University; Carnegie Mellon, 2011–

MARTIN CARLISLE, Director of Academic Affairs, Information Networking Institute Teaching Professor, Information Networking Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Princeton University;

STEVE CHASE, Associate Professor of BioMedical Engineering and Center for the Neural Basis of Cognition; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., John Hopkins University; Carnegie Mellon, 2012–

HOWIE CHOSET, Professor of Robotics Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., California Institute of Technology; Carnegie Mellon, 1996–

NICOLAS CHRISTIN, Associate Research Professor of Engineering and Public Policy Core Faculty, Institute for Software Research; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Virginia; Carnegie Mellon, 2005–

LORRIE CRANOR, Associate Department Head and FORE Systems Professor, Engineering and Public Policy; Director, CyLab Usable Privacy and Security Laboratory; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Washington University; Carnegie Mellon, 2008–

ROBERT DAVIS, John and Claire Bertucci Distinguished Professor of Materials Science and Engineering; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of California, Berkeley; Carnegie Mellon, 2010–

FERNANDO DE LA TORRE FRADE, Research Scientist, Robotics Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., La Salle School of Engineering, Barcelona, Spain; Carnegie Mellon, 2009–

JOHN DOLAN, Senior Systems Scientist, Robotics Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2006–

DAVE ECKHARDT, Assistant Teaching Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2011–

CHRISTOS FAULTOUS, Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Toronto; Carnegie Mellon, 1998–

RANDY FEENSTRA, Professor of Physics; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., California Institute of Technology; Carnegie Mellon, 1995–

MATT FREDRICKSON, Assistant Professor, Institute of Software Research; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Wisconsin-Madison; Carnegie Mellon, 2016–

IOANNIS GKIOLUKAS, Assistant Professor, Robotics Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Harvard University; Carnegie Mellon, 2017–

SETH C. GOLSTEIN, Associate Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 1997–

MOR HARCHOL-BALTER, Associate Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 1999–

BIN HE, Department Head, Biomedical Engineering; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Toyo Institute of Technology; Carnegie Mellon, 2018–

ALEX HILLS, Distinguished Service Professor of Engineering and Public Policy; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 1992–

RALPH HOLLIS, Research Professor, Robotics Institute; Courtesy Faculty of Electrical and Computer Engineering; Carnegie – Ph.D., University of Colorado, Boulder; Carnegie Mellon, 1993–

JASON HONG, Associate Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 2010–

FARNAHM JAHANIAN, President, Carnegie Mellon University; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Texas at Austin; Carnegie Mellon, 2014–

B. REEJA JAYAN, Assistant Professor, Mechanical Engineering; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Texas at Austin; Carnegie Mellon, 2015–

AARON JOHNSTON, Assistant Professor, Mechanical Engineering; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Pennsylvania; Carnegie Mellon, 2014–

JANA KAINERSTORFER, Assistant Professor, Biomedical Engineering; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Vienna/NIH; Carnegie Mellon, 2015–

TAKEO KANADE, U.A. and Helen Whitaker Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Kyoto University; Carnegie Mellon, 1980–

SHAWN KELLY, Senior Systems Scientist, Engineering Research Accelerator; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2012–

KRIS KITANI, Assistant Research Professor, Robotics Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Tokyo; Carnegie Mellon, 2011–

ZICO KOLTER, Assistant Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Carnegie Mellon, 2015–

DAVE LAUGHLIN, ALCOA Professor of Materials Science Engineering; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 1974–

CHANGLI LIU, Assistant Professor, Robotics Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of California at Berkeley;

SARA MAJETICH, Professor of Physics; Courtesy Faculty of Electrical and Computer Engineering; Affiliated Faculty - DSSC – Ph.D., University of Georgia; Carnegie Mellon, 2010–

CARMEL MAJIDI, Clarence H. Adamson Associate Professor, Mechanical Engineering; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 2011–

ROY MAXION, Research Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Colorado; Carnegie Mellon, 1984–

FLORIAN METZE, Associate Research Professor, Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Dr.-Ing., Fakultät für Informatik der Universität Karlsruhe; Carnegie Mellon, 2009–

HOSEIN MOHIMANI, Assistant Professor, Computational Biology; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of California at San Diego; Carnegie Mellon, 2017–

JAMES MORRIS, Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 1982–

TODD MOWRY, Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering; Co-Director CALCM – Ph.D., Stanford University; Carnegie Mellon, 1997–

SRINIVASA NARASIMHAN, Associate Professor, Robotics Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Columbia University ; Carnegie Mellon, 2016–

HAE YOUNG NOH, Assistant Professor of Civil and Environmental Engineering; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Stanford University ; Carnegie Mellon, 2014–

CORINA PASAREANU, Senior Research Scientist, Carnegie Mellon University Silicon Valley; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Kansas State University; Carnegie Mellon, 2015–

ANDY PAVLO, Assistant Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Brown University; Carnegie Mellon, 2014–

JON M. PEHA, Professor of Engineering and Public Policy; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Stanford University; Carnegie Mellon, 1991–
ANDRE PLATZER, Associate Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Oldenburg, Germany; Carnegie Mellon, 2010–

BHIKSHA RAJ RAMAKRISHNAN, Associate Professor of Language Technologies Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2009–

RAJ REDDY, Mozah Bint Nasser University Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Stanford University; Carnegie Mellon, 2000–

MAID SAKR, Teaching Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Pittsburgh; Carnegie Mellon, 2001–

MAHADEV SATYANARAYANAN, Carnegie Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 1983–

JEFF SCHNEIDER, Research Professor, Robotics Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Rochester; Carnegie Mellon, 2013–

SRINIVASAN SESHAN, Associate Professor of Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 2000–

NIHAR SHAH, Assistant Professor, Machine Learning; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 2017–

JUSTINE SHERRY, Assistant Professor, Computer Science Department; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 2017–

RITA SINGH, Senior Systems Scientist, Language Technologies Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Delhi; Carnegie Mellon, 2017–

MARVIN A. SIRBU, Professor, Engineering and Public Policy; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 1985–

METIN SITTI, Professor, Mechanical Engineering; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Tokyo; Carnegie Mellon, 2002–

ASIM SMAILAGIC, Research Professor of ICES; Director of LINCS; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Sarajevo and University of Edinburgh; Carnegie Mellon, 1992–

STEPHEN SMITH, Research Professor, Robotics Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Pittsburgh; Carnegie Mellon, 1982–

KOUSHIL SREENATH, Assistant Professor, Robotics Institute; Courtesy Faculty of Electrical and Computer Science – Ph.D., University of Michigan; Carnegie Mellon, 2014–

REBECCA TAYLOR, Assistant Professor, Mechanical Engineering; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Stanford University; Carnegie Mellon, 2016–

SRIDHAR TAYUR, Professor, Tepper School of Business; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Cornell University; Carnegie Mellon, 2017–

MANUELA VELOSO, Herbert A. Simon University Professor; Head Machine Learning; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2011–

RASHMI VINAYAK, Assistant Professor, Computer Science; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 2017–

TONY WASSERMAN, Professor, Software Management Practice; Executive Director of the Center for Open Source Investigation; Carnegie Mellon University Silicon Valley; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., University of Wisconsin-Madison; Carnegie Mellon, 2005–

LEE WEISS, Research Professor, Robotics Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2009–

WILLIAM (RED) WHITTAKER, University Professor, Robotics Institute; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 1979–

ERIK YDSTIE, Professor of Chemical Engineering; Courtesy Faculty of Electrical and Computer Engineering – Ph.D., Imperial College, London; Carnegie Mellon, 1992–

HUI ZHANG, Professor of Computer Science; Courtesy Professor of Electrical and Computer Engineering – Ph.D., University of California, Berkeley; Carnegie Mellon, 1995–