In 2016, UConn Engineering celebrates 100 years as a degree offering program. From a modest beginning supporting agriculture, Engineering has evolved into a superb program distinguished by outstanding faculty, state-of-the-art facilities and the most academically accomplished students in UConn history.

The new Innovation Partnership Building, pictured, is under construction and scheduled for completion in 2017. The $172 million building will feature advanced labs where UConn faculty and industry partners will work together to solve societal issues.
SCHOOL OF ENGINEERING

- 3,700+ undergraduates
- 950+ M.S. & Ph.D. students
- 170+ industry-funded real-world senior design projects
- 160+ full time faculty
- $560,000 industry/alumni funded merit scholarships
- 5 NSF Research Experiences for Undergraduates (REU) sites
- 18 professional engineering student societies
- 4 Dedicated Living & Learning Communities: Engineering, Eurotech, Innovation House and Women in Math, Science and Engineering
- Grad and undergrad professional development - proposal writing, teaching, networking
- 60+ hours/week peer tutoring in STEM for freshmen, sophomores

UNIVERSITY OF CONNECTICUT

- #19 among U.S. public research universities (U.S. News & World Report 2015)
- Total student enrollment – 31,624
- 18,826 undergraduates at main campus
- 4,581 undergraduates at regional campuses
- 8,217 graduate/professional

ENGINEERING MAJORS

- Biomedical Engineering (B.S.E., M.S., Ph.D.)
- Chemical Engineering (B.S.E., M.S., Ph.D.)
- Civil Engineering (B.S.E., M.S., Ph.D.)
- Computer Engineering (B.S.E.)
- Computer Science (B.S.)
- Computer Science & Engineering (B.S.E., M.S., Ph.D.)
- Electrical Engineering (B.S.E., M.S., Ph.D.)
- Engineering Physics (B.S.)
- Environmental Engineering (B.S.E., M.S., Ph.D.)
- Management & Engineering for Manufacturing (B.S.)
- Materials Science & Engineering (B.S.E., M.S., Ph.D.)
- Mechanical Engineering (B.S.E., M.S., Ph.D.)
- Polymer Science (M.S., Ph.D.)

ACADEMIC EXCELLENCE

THE UNIVERSITY OF CONNECTICUT IS ONE OF THE TOP PUBLIC RESEARCH UNIVERSITIES IN THE NATION, WITH MORE THAN 30,000 STUDENTS PURSUING ANSWERS TO CRITICAL QUESTIONS IN LABS, LECTURE HALLS, AND THE COMMUNITY. KNOWLEDGE EXPLORATION THROUGHOUT THE UNIVERSITY’S NETWORK OF CAMPUSES IS UNITED BY A CULTURE OF INNOVATION.

MAJOR INVESTMENTS

- Next Generation Connecticut - A $1.5 billion capital investment over 10 years (2013 - 2023)
- Bioscience Connecticut - An $864 million investment in genomics and personalized medicine
- UConn 2000 - Over 110 projects totaling $2.6 billion between 1995 and 2012 - over 4 million square feet of new and renovated space added

Jonathan XIV
RESEARCH HIGHLIGHTS

• About $50 million annually in research expenditures
• Over $9 million in funding from 50 R&D projects with industry
• $17 million Federal Highway Administration and Connecticut Department of Transportation grant for transportation safety analysis
• $7.5 million MURI grant for security of existing and next generation nano-scale devices
• $4.3 million NSF PIRE grant for water and agricultural resource management in Ethiopia
• $2.3 million Eversource grant for predictive storm and damage modeling preparedness

AN UNPRECEDENTED COMMITMENT FROM THE STATE OF CONNECTICUT AND INDUSTRY ENSURES UCONN ATTRACTS INTERNATIONALLY RENOWNED FACULTY AND THE WORLD’S BRIGHTEST STUDENTS.

RESEARCH CENTERS & MAJOR INDUSTRIAL PARTNERSHIPS

• Additive Manufacturing Innovation Center in Partnership with Pratt & Whitney
• Booth Engineering Center for Advanced Technology
• Center for Clean Energy Engineering
• Center for Environmental Science and Engineering
• Center for Hardware Assurance, Security and Engineering
• Center for Information Assurance and Computer Systems Security
• Center for Transportation & Livable Systems
• Center for Voting Technology Research
• Comcast Center of Excellence for Security Innovation
• Connecticut Transportation Institute
• Connecticut Transportation Safety Research Center
• Eversource Energy Center
• FEI Center for Advanced Microscopy and Materials Analysis
• Fraunhofer Center for Energy Innovation
• General Electric Center of Excellence in Advanced Materials and Modeling
• Institute of Materials Science
• Pratt & Whitney Center of Excellence in Aerospace Systems
• UTAS Center for Advanced Materials
• UTC Institute for Advanced Systems Engineering

MEMBERSHIP IN NATIONAL MANUFACTURING INNOVATION INSTITUTES

• NextFlex Flexible Electronics Institute
• Clean Energy Smart Manufacturing Institute

INDUSTRIAL ENGAGEMENT

• Industry Open House – Annual networking event with engineering faculty and industry representatives that encourages collaboration
• Senior Design – More than 170 industry sponsored senior design projects each year
• Collaborative Proposals with Industry Partners – Each year, our faculty develop numerous joint proposals for collaborative research with industry partners, federal and state agencies
• UConn Tech Park – Together with our faculty expertise, the UConn Tech Park provides state-of-the-art facilities that can be utilized by companies to improve product development
• Career Fairs – UConn Engineering and the Center for Career Development host a number of engineering focused career fairs throughout the year

Below, a rendering of the new 118,000 sq. ft. Engineering & Science Building located on the Storrs campus.
Rendering courtesy Mitchell/Giurgola Architects
NEW ENGINEERING & SCIENCE BUILDING
In 2017, a new $62 million, 80,000 sq. ft. engineering building will open at the Storrs campus, to house dedicated space for research, offices and learning in cyber-physical systems, biomaterials and biodevices, genomics, nanotechnology and electrochemistry.

$1 BILLION STATE-BONDED TECH PARK
Initial $172 million building will open in 2017: the Innovation Partnership Building (IPB) will feature incubation space and shared labs for use by industry engineers and scientists in areas spanning advanced manufacturing and materials. Some of Connecticut’s leading corporations and industries are serving as partners for the IPB, including the United Technologies Corporation, General Electric, Comcast, Pratt & Whitney, Eversource Energy, FEI Company and Fraunhofer USA.

NEXT GENERATION CONNECTICUT
A $1.5 billion state investment in UConn STEM programs. This is one of the most ambitious state investments in economic development, higher education and research in the nation. The goals of this 10-year plan include dramatically increasing undergrad enrollment by over 5,000 talented students, growing our STEM faculty to match that growth and building new STEM facilities and teaching laboratories.

$1.1 BILLION JACKSON LABORATORY FACILITY IN CONNECTICUT
The genetics powerhouse’s state-of-the-art Jackson Laboratory for Genomic Medicine at the UConn Health Center brings personalized medicine, such as complex diagnostics and drug development, closer to full realization.

BIOSCIENCE CONNECTICUT
An $865 million state initiative is expanding the UConn Health Center for enhanced bioscience research capacity and productivity.

QUIET CORNER INNOVATION CLUSTER
This new center, funded by the Economic Development Administration, connects small and medium sized companies in New London, Tolland and Windham counties with the University of Connecticut. UConn experts provide R&D for new products and employee training to help companies remain profitable and competitive in the global 21st century marketplace.
OUTREACH

UConn Engineering hosts a number of programs in hands-on Science, Technology, Engineering and Math (STEM) education for primary and secondary students, especially underrepresented populations.

- **Engineering Ambassadors** – A network of college students dedicated to inspiring future engineers
- **Engineering Your Future** – A conference for eighth grade boys, aimed at underrepresented populations
- **Explore Engineering** – A one week summer program for high school sophomores and juniors
- **Kids Are Scientists and Engineers Too (KASET)** – A fifth to tenth grade engineer enrichment program
- **Multiply Your Options** – A conference for eighth grade girls to inspire them into STEM careers
- **Pre-Engineering Program** – A middle school student engineering enrichment program

K-12 TEACHER DEVELOPMENT

These summer programs give primary and secondary educators the chance to participate in engineering research.

- **Joule Fellows** – A six week National Science Foundation (NSF) funded summer research experience for teachers
- **daVinci Project** – A week long summer engineering introduction for teachers

STUDENT DEVELOPMENT

UConn Engineering offers several programs to help students excel, including scholarships, fellowships and programs designed to ease the transition into undergraduate and graduate education.

- **FIFE Scholars** – An NSF-funded scholarships for Tech School graduates
- **BRIDGE** – A five week summer prep program for admitted underrepresented students
- **National Science Foundation (NSF) LSAMP** – Skills and success nurturing and mentoring program for underrepresented students
- **NSF Research Experiences for Undergraduates** – Five sites that support active research participation by undergraduate students
- **NSF LSAMP Bridge to the Doctorate Program** – Fellowships for underrepresented students pursuing their Ph.D. in STEM disciplines
- **Department of Education Graduate Assistance in Areas of National Need (GAANN)** – Six sites that gives fellowships to exceptional grad students who demonstrate financial need
- **NSF-Funded Graduate STEM Fellows in K-12 Education** – This $2.7 million investment embeds grad students in 11 Connecticut Tech School classrooms

INTERNATIONAL

These programs enhance our students’ education by providing an opportunity to learn about engineering globally, while also offering technical support to empower developing communities.

- **Human Rights Minor** – Expanded to include engineering, reflecting a growing awareness of engineering’s impact on technological designs, policies and practices within larger ecosystems and contexts
- **Educational Exchanges** – With universities worldwide through Study Abroad programs
- **Engineers Without Borders** – Successful current projects in Nicaragua and Ethiopia
- **Engineering-Spanish Program** – Allows students to complete a dual Spanish/Engineering degree, with study in Spain
- **Eurotech Program** – A dual degree program that offers first-hand engineering and language education in Germany

COMMUNITY & GLOBAL ENGAGEMENT

AS A VIBRANT, PROGRESSIVE LEADER, UCONN FOSTERS A DIVERSE AND DYNAMIC CULTURE THAT MEETS THE CHALLENGES OF A CHANGING GLOBAL SOCIETY.
STUDENT STARTUP COMPANIES:

Advanced Columns Solutions, LLC – State-of-the-art structural column systems used in bridges, highway overpasses and other roadway applications

Bitwise Devices, LLC – Controllable Drum Light System to visually enhance the performance of a drum line

Health eSense – A non-invasive method for blood-glucose monitoring of diabetes patients using a breathalyzer-type device

Herman and Peterson Engineering – Producer of ProcureMed, an online marketplace that reduces the time it takes for a hospital to order medical equipment

Higher Computing, LLC – Produces software systems to track and monitor movements, in a safer and less expensive way than current monitoring systems on the market

Instant Imaging Technology, LLC – Develops innovative imaging solutions to improve microscope performance and convert regular microscopes into high-throughput whole slide imaging systems

mBiotics – Rapid, on-site disease diagnostics using magnetic levitation

MedAlarm Safety System – Manages the alarms of various medical devices using proprietary software to provide data storage and data analysis services

NexGen Infrastructure, LLC – Smart bridge bearing that measures vertical loads and can replace current bridge monitoring methods

OrteoPoniX, LLC – Biomorphic scaffolds for bone regeneration that mimic the chemical composition and structure of both cancellous bone and lamellar bone

Smart Gestures – A software application device that uses virtual reality to assist in neural physical rehabilitation for stroke sufferers

Dura Biotech – Maker of the Dura Heart Valve, a trans-catheter aortic valve featuring a lifetime up to four times that of any valve currently on the market or in clinical trials

Salubaie – Producer of Salve, an iOS, Android and web application that consolidates an individual’s health care information

Q-PRO Bracing Technologies, LLC – Developer of a minimally activated knee brace

Voda Water, LLC – Water dispensing system that allows subscribers to add their choice of minerals; system includes water stations, filters, mineral cartridges and reusable subscriber-specific barcoded bottles

FACULTY STARTUP COMPANIES:

3d Array Technology – Provides high performance, functional materials and customized materials innovation service to customers

Academic Keys, LLC – A premier source of information for academia.

Amastan – Plasma technologies for the production and processing of nanomaterials

Biorasis – Wireless, needle-implantable, miniaturized sensor platform for real time, continuous glucose monitoring

Control Station – Industrial process control system performance monitoring and optimization

Coherent (Now DEOS) – Laser sources, tools and systems; measurement instrumentation and components

IMCORP – Diagnostic services on medium and high voltage AC cable systems

Natural Polymer Devices – New materials for the repair and replacement of damaged hard tissues, such as bone

Optoelectronics Systems Consulting, Inc. – Develops technology that enables manufacturing of implantable miniaturized biosensors, flexible displays, and sustainable energy devices

Poet Technologies (previously OPEL Solar, Inc.) – Photovoltaic technologies

Polaron Alloy Technologies, LLC – New classes of alloy materials, alternatives to costly gold and other precious metals, for use in electronic applications

Qualtech Systems – Software for system health diagnostics

Smpl Bio – Creates bioinformatics platform technology that enables researchers to gain insights into the nature of genes and proteins

Solution Spray Technologies – Develops plasma spray coating solutions for challenging applications

Vibration Mitigation Technologies – Stoplight pole vibration damping technology

School of Engineering
University of Connecticut
261 Glenbrook Rd., Unit 3237
Storrs, CT 06269-3237
(860) 486-2221

On the cover: An artist’s rendering of the future Innovation Partnership Building to be located at the UConn Technology Park.

Rendering courtesy of Skidmore, Owings & Merrill