The College of Engineering is one of 11 colleges that comprise The University of Iowa and is located in the Seamans Center for the Engineering Arts and Sciences on the University's main campus. The college recently completed a $37 million, 65,000-square-foot addition to the Seamans Center, which includes expanded classrooms, collaborative learning spaces, learning and discovery in fluid mechanics, sustainability, advances in teaching and conducting research in computer-aided design and simulation, and fosters engineering and the arts.

The College of Engineering facilities span nearly 400,000 square feet in 20 buildings both on and off the University of Iowa's campus. Our human resources include 97 tenured and tenure-track faculty, 17 instructional track faculty and 231 professional and scientific and merit staff members. The College has six primary research units including the Center for Bioinformatics and Computational Biology (CBCB), Iowa Technology Institute (ITI), National Advanced Driving Simulator (NADS), Iowa Institute for Artificial Intelligence (IIAI), Iowa Institute for Biomedical Imaging (IIBI), and IIHR-Hydroscience and Engineering, which is also home to the Iowa Flood Center (IFC) and the Iowa Geological Survey (IGS).

Center for Bioinformatics and Computational Biology (CBCB)

The Center for Bioinformatics and Computational Biology aims to catalyze the development of new areas of study and expand research opportunities in informatics related to the basic biological sciences and applied medical research. Founded in 2002 as a joint enterprise spanning the Colleges of Engineering and Medicine and Science, the CBCB involves faculty from 5 Colleges, 7 Affiliated Centers/Institutes/Cores, and more than 19 departments. It serves as a coordinating home for interdisciplinary research, undergraduate, pre- and post-doctoral training, as well as faculty recruiting and professional development. At the hub of an inherently interdisciplinary field, the goal of the CBCB is to assist in overcoming traditional disciplinary hurdles in collaboration and assist in utilizing state of the art instrumentation and analysis methods needed by 21st century biomedical and basic science research.

CBCB consists of approximately 20 full-time faculty, post-docs, staff, and students occupying 4,200 sq. ft. housed in the Seamans Center for the Engineering Arts and Sciences Building on the University of Iowa main campus.

Iowa Technology Institute (ITI)

The University of Iowa Technology Institute is a multidisciplinary research hub that conducts trailblazing basic and applied research and invents advanced technologies to enable a safer and more productive future built on collaboration. Current research areas involve flight testing and human performance, human modeling and simulation, driving and transportation, advanced manufacturing technology and robotics, biomedical and biochemical science and engineering, machine learning, smart sensors, remote sensing, renewable energy, and modeling of environmental change. We strive to advance the field of modeling and simulation at all levels through a multi-disciplinary approach. Our researchers integrate

mathematics, computers, programming, clinical approaches, data, and hardware into functioning prototypes and programs that can help people, and we have a strong focus on and tradition of transferring technology to the market.

ITI covers 32,000 sq ft. across three campus facilities including the Seamans Center for the Engineering Arts and Sciences Building, the Engineering Research Facility, and the Operator Performance Laboratory located in Hanger H at the Iowa City Airport. We provide a unique environment for research and development, spanning more than 30 labs with the involvement of more than 200 faculty, staff, students, and other collaborators. A growing team of faculty affiliates supports discovery of knowledge in six mission areas. Labs are supported by graduate and undergraduate student researchers who cultivate and hone skills in experimentation. Administrative staff support efforts to secure external funding through grants and contracts.

Iowa Institute for Artificial Intelligence (IIAI)

The Iowa Initiative for Artificial Intelligence (IIAI) mission is to support cooperative interdisciplinary and cross-college artificial intelligence (AI) and machine learning research and to improve training and education within the broader community at the University of Iowa. The formation of this initiative reflects a strong institutional support to AI, machine learning, deep learning, and high-performance GPU computing across application areas. The IIAI brings together over 65 faculty members, 80 graduate students and postdoctoral fellows, and 23 professional and scientific staff members with active research in this area. IIAI has two primary development labs located in the Seamans Center for the Engineering Arts and Sciences Facility (4622 SC) and the Tippie College of Business in the John Pappajohn Business Building (S207 PBB).

Iowa Institute for Biomedical Imaging (IIBI)

The Iowa Institute for Biomedical Imaging (IIBI) was formed in 2007 as an acknowledgment of a long history of interdisciplinary collaboration at the University of Iowa. The formation of the IIBI reflects the strong institutional support to biomedical imaging and image analysis as well as to translational medical research. The IIBI brings together more than 60 graduate students and postdoctoral fellows and over 60 faculty members, including 45 faculty in the Carver College of Medicine and 15 faculty in the College of Engineering, with a primary expertise in biomedical image analysis. The mission of IIBI is to foster efficient and cooperative inter-disciplinary and cross-college research and discovery in biomedical imaging and to improve training and education within the broader community at the University of Iowa. The Institute is located in two stories of the 100,000 sq. ft. University of Iowa Pappajohn Biomedical Discovery Building that was completed in 2014. The IIBI space (30,897 sq. ft.) is devoted to human, large, and small animal imaging, computational support, image analysis, visualization, and biostatistical support. It also is the integrated home for a large number of image analysis projects that are currently ongoing at the University of Iowa and will therefore further enhance close interaction within the University's biomedical imaging community.

National Advanced Driving Simulator (NADS)

The National Advanced Driving Simulator (NADS) is a transportation safety research center in the College of Engineering. The NADS facility is located at the University of Iowa's Oakdale Campus and covers approximately 37,000 sq ft. Our 26 faculty and staff researchers utilize its suite of world-class driving simulators and instrumented on-road vehicles to conduct research studies for the private and public sectors. Funded by government, military, and industry partners, our expertise includes human factors, drugged driving, connected and automated vehicles, simulation science, crash biomechanics, safety and crash data analysis.

IIHR-Hydroscience and Engineering

IIHR—Hydroscience & Engineering (IIHR) is a hydraulics laboratory with over a century of experience in fluids-related research and education. IIHR is especially well positioned to successfully develop and manage projects based on its extensive available resources, including human resources, facilities, instrumentation, and interactive analysis and decision-support tools. Human resources currently include 55 faculty members and research engineers at the PhD level, 8 postdoctoral scholars, and about 90 MS and PhD graduate students. IIHR's other 42 full-time staff include engineers, geologists, GIS analysts, administrative staff (including grant development, accounting and reporting support), research computing support, and machine and shop engineers.

The C. Maxwell Stanley Hydraulics Laboratory (SHL) is IIHR's flagship facility and its intellectual and administrative hub. It is one of 10 facilities that together comprise 120,000 square feet of space for research, teaching, and support services, including large spaces for physical models, several hydraulic flumes, many experimental instruments and sensors, mechanical and electrical shops, and other specialized resources. IIHR's experimental facilities include multiple state-of-the art laboratories on the UI campus and elsewhere in southeast Iowa, including the Model Annex, East Annex, Wind-Tunnel Annex, Oakdale Annexes 1 and 2, James Street Laboratory, and the Lucille A. Carver Mississippi Riverside Environmental Research Station. The Model Annex (11,000 sq ft), Oakdale Annex 1 (11,000 sq ft), Oakdale Annex 2 (15,000 sq ft), and James Street Laboratory (15,000 sq ft) almost exclusively support hydraulic-model studies.

IIHR's two sub-research units include the Iowa Flood Center and the Iowa Geological Survey.

Iowa Flood Center (IFC)

The Iowa Flood Center (IFC) provides Iowans with access to the latest technology and resources to help them prepare for floods and become more resilient to their effects. The center's outward-facing philosophy focuses on providing direct services to benefit the people of Iowa. The IFC is actively engaged in flood-related projects that help Iowans understand their flood risks and make better flood-related decisions. The Iowa Flood Center is located in the Stanley Hydraulics Lab on the University of

Iowa's main campus and includes a team of four directors, 14 faculty and staff researchers, five support staff, and 19 graduate students and postdoctoral fellows.

Iowa Geological Survey

The Iowa Geological Survey is a comprised of 11 geologists and one staff member who support research at IIHR with expertise in Iowa's earth and mineral resources, groundwater modeling, and more. The Iowa Geological Survey's mission is to collect, reposit, and interpret geologic and hydrogeologic data, to conduct foundational research, and to provide Iowans with the knowledge needed to effectively manage our natural resources for long-term sustainability and economic development.

The administrative home of the Iowa Geological Survey is on the third floor of Trowbridge Hall (5,000 sq ft) on the main campus of the University of Iowa. The Oakdale Iowa Geological Survey (OIGS) building is the unit's research home, located on the west edge of the University of Iowa Research Park (19,000 sq ft). The OIGS Building houses the Iowa Geological Survey's (IGS) Rock Library, which is the repository for driller's logs, well cores, well chips, and rock specimens from exposures throughout Iowa. Additionally, the building is also used for publication and file storage, equipment maintenance and storage, and fabrication of equipment. OIGS also houses office space for personnel, a conference room, a water-quality lab, and a sediment lab.