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MESSAGE FROM THE DIRECTOR

Liz Hsiao-Wecksler, Ph.D., Interim Director
Professor, Department of Mechanical Science & Engineering
Willett Faculty Scholar

Under the outstanding leadership of Professor T. (Kesh) Kesavadas since 2014, the Health Care Engineering Systems Center (HCESC) has established itself as a hub of interdisciplinary health care innovation on the University of Illinois campus. In January 2022, Dr. Kesavadas departed from UIUC to bigger adventures and I was privileged to be designated as the Interim Director to ensure that the Center continued to uphold its reputation.

Due to the chaos of the COVID-19 pandemic, this “annual” report covers the activities of the Center for the past two academic years, 2020-2021 and 2021-2022. Over the past two years, the Center has expanded the reach of the Jump ARCHES Program, the Health Data Analytics Initiative, and the Jump Simulation Center Urbana.

The Jump ARCHES Program has increased its accessibility to funding for investigators from throughout campus for a more integrative approach to health care innovation. Recently, ARCHES has funded investigators from Gies College of Business, College of Education, Center for Social and Behavioral Sciences, and others in addition to The Grainger College of Engineering. In 2022, ARCHES investigators were offered the opportunity to have a fully funded summer intern work on their project as part of the Jump ARCHES Summer Internship Program, which includes professional development programming held annually at the Center. Starting with Fall 2022, the Jump ARCHES administration is making a number of changes to the funding cycle process to develop cross-institutional and interdisciplinary teams and competitive project proposals that will result in clinical impact, scholarly contributions, large externally funded grants, intellectual property, and/or new startup companies. To that end, we are working on the creation of a matchmaking database between Illinois and the OSF HealthCare system to result in highly collaborative and engaged team members that can identify and tackle significant healthcare problems.

The Health Data Analytics Initiative has further established itself as a connector between campus and industry partners. It has diversified its affiliations on campus, and has strengthened ties most notably with the Gies College of Business.

The Jump Simulation Center Urbana has grown to provide the simulation needs of the Carle Illinois College of Medicine medical students. Carle Illinois graduated its first class of clinician-innovators this past May, and all of us at the Health Care Engineering Systems Center are extremely proud to have been a part of their education. To provide services for Carle Illinois and the growing interest from the surrounding Champaign-Urbana area, the Jump Simulation Center Urbana has also increased its staff and offerings.

While my time as Interim Director is coming to a close at the end of the year, I am grateful for the opportunity to lead these innovative health care initiatives, and wish the Health Care Engineering Systems Center and its new Director the best in its future endeavors.
ABOUT THE HEALTH CARE ENGINEERING SYSTEMS CENTER AT ILLINOIS

The Health Care Engineering Systems Center at the University of Illinois Urbana-Champaign is a research center housed under the Coordinated Science Lab in The Grainger College of Engineering. The Center fosters collaboration between engineers and physicians in the areas of simulation technology, smart health, health data analytics, and medical robotics. The Center is known as a place where engineering meets medicine in innovative ways to develop collaborative solutions that improve the patient experience and outcome.

The Center was founded in 2014 and has since grown to manage the Jump Simulation Center Urbana, and the Health Data Analytics Initiative. The Center partners with the Jump Trading Simulation and Education Center and OSF HealthCare in Peoria, Illinois to manage the Jump ARCHES endowment.

Jump Simulation Center Urbana

Jump Simulation Center Urbana is a state-of-the-art educational space focused on using and developing simulation and virtual reality technology to train medical professionals. It was established in 2018 by a $10 million gift from Jump Trading, and is a manifestation of the mission of Jump ARCHES: to create new and innovative technology to transform the way health care professionals learn and practice.

Health Data Analytics Initiative

The Health Data Analytics Initiative is a hub that connects clinical investigators with engineers, data scientists, and AI experts from across the university. We’re committed to enabling and driving fundamental medical research and improving health care by designing tailored AI and data retrieval solutions for our partners. The Initiative has won grants from C3.ai and NSF.
Jump ARCHES

Jump Applied Research in Community Health through Engineering and Simulation (ARCHES) is an endowment partnership between Jump Simulation and Education Center at OSF HealthCare and The Grainger College of Engineering at the University of Illinois Urbana-Champaign. It was established in 2014 by a $62.5 million gift to provide direct access and competitive grants to engineers and physicians working together to combat problems in the realm of health care. In 2019, the partnership was expanded with a new commitment of $50 million. This expansion has fueled a new generation of joint research projects on mobile sensors, Internet of Things applications, data analytics, and deeper understandings of social and behavioral determinants of health.

To apply, each proposal must include one investigator from The Grainger College of Engineering, and one investigator from either OSF HealthCare or UICOMP. Calls for proposals are announced twice annually - in the spring and the fall. The program also hosts a summer internship every year at the Health Care Engineering Systems Center, offering undergraduate and graduate students the opportunity to work with investigators at the University of Illinois on their active grant projects to learn collaborative skills and apply their classroom knowledge to a real-world problem in the field of medicine.

Since 2014:

125
TOTAL FUNDED PROJECTS

$8,247,014
Research Dollars Awarded

45+
Papers Published

14+
Patents Filed
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN INVESTIGATOR BREAKDOWN

INVESTIGATORS BY COLLEGE

- The Grainger College of Engineering (42%)
- Carle Illinois College of Medicine (17%)
- College of Liberal Arts & Sciences (14%)
- College of Education (8%)
- College of Applied Health Sciences (7%)
- Gies College of Business (11%)
- School of Information Sciences (4%)
- College of Veterinary Medicine (7%)
- College of Agricultural, Consumer, and Environmental Sciences (2%)
EXTERNAL INVESTIGATOR BREAKDOWN

FIELDS OF STUDY & PRACTICE

- Pediatrics
- Nephrology
- Neurology
- Surgery
- Medicine
- Oncology
- Digital Health
- Nursing
- Pulmonology
- Psychiatry
- Health Sciences Education
- Rehabilitation
- Population Health
- Pharmacology
- Infectious Diseases
- Radiology
- Data Science & Informatics

INSTITUTION

- OSF HealthCare
- University of Illinois College of Medicine Peoria (UICOMP)
- Jump Simulation & Education Center
- Carle Foundation Hospital
- Mayo Clinic
- iSpin Health LLC
JUMP ARCHES FUNDED PROJECTS – FALL 2020

7Tesla Imaging of Severe Traumatic Brain Injury
Paul Arnold, Carle; Andrew Webb, Carle; Ravishanker Iyer, UIUC; Brad Sutton, UIUC; George Heintz, UIUC; Dzung Dinh, UICOMP/OSF HealthCare

Remote State Anxiety Detection and Monitoring Using Multimodal Wearable Sensors
Manuel E. Hernandez, UIUC; Elizabeth Hsiao-Wecksl, UIUC; Richard Sowers, UIUC; Brent Roberts, UIUC; Susan Caldecott-Johnson, OSF HealthCare/UICOMP; Jean Clo re, UICOMP

MedLang Phase II: An Intelligent Medical Record
William Cope, UIUC; Cheng Xiang Zhai, UIUC; Mary Kalantzis, UIUC; Richard Tapping, UICOMP; Yerko Berrocal, UICOMP; Duncan Ferguson, UIUC; Jessica Hanks, OSF HealthCare/UICOMP; Meenakshy Aiyer, OSF HealthCare/UICOMP

Empowering Families and Clinicians: Visualizations of Social Communication Behavior of Children with Autism
Karrie Karahalios, UIUC; Siraj Siddiqi, OSF HealthCare; David Forsyth, UIUC; Mark Hasegawa-Johnson, UIUC; Hedda Meadan, UIUC

Toward Automated Diagnosis and 3D Representation of SEEG Clinical Data
Matthew Bramlet, UICOMP/OSF HealthCare; Brad Sutton, UIUC; Yogatheesan Varatharajah, UIUC; Andres Mal donado, UICOMP/OSF HealthCare; Michael Xu, UICOMP/OSF HealthCare

MedLang Phase II: A Concept Mapping Tool for Case Analysis by Medical Students and Researchers
Vishal Verma, Civil & Environmental Engineering, UIUC
Matthew Bramlet, OSF HealthCare/UICOMP

Community-Based Tele-Rehabilitation Health Network for Robotic Stroke Therapy
T. Kesh Kesavadas, UIUC; Dusan Stipanovic, UIUC; Anne Horowitz, OSF HealthCare

Soft and Dexterous Service Robot Configurations to Support Healthcare at Home for Older Adults
Girish Krishnan, UIUC; Wendy Rogers, UIUC; Ryan Riech, OSF HealthCare

Precision Population Science: Optimal Deployment of Cancer Prevention through Digital Health Workers
Sarah Stewart de Ramirez, OSF HealthCare/UICOMP; Hyojung Kang, UIUC; Lavanya Marla, UIUC; Roopa Foul ger, OSF HealthCare; Mackenzie McGee, OSF HealthCare; Abby Lotz, OSF HealthCare; Melinda Cooling, OSF HealthCare

A Training Simulator for Clinical Breast Examination (CBE)
Anusha Muralidharan, UIUC; Sarah Stewart de Ramirez, OSF HealthCare/UICOMP; T. Kesh Kesavadas, UIUC; Rohit Bhargava, UIUC; Sandhya Pruthi, Mayo Clinic; Kimberly Michelle Bolin, National Consortium of Breast Centers

Video Enhanced Neurology (VEN)
Chris Zallek, OSF HealthCare; George Heintz, UIUC; Steven Kaste

Spatio-Temporal Analysis with Tensor Factorization and Visualization for Pediatric Mobile Vaccination
Jimeng Sun, UIUC; Mary Stapel, OSF HealthCare; Scott Barrows, OSF HealthCare; Adam Cross, OSF HealthCare; Elise Albers, OSF HealthCare; Ginger Barton, OSF HealthCare; Michelle Sheppard, OSF HealthCare; George Heintz, UIUC; Yaroslav Daniel Bodnar, OSF HealthCare/UICOMP

Early Detection of Developmental Disorders via Remote Sensing Platform
Nancy McElwain, UIUC; Susan Caldecott-Johnson, OSF HealthCare/UICOMP; Mark Hasegawa-Johnson, UIUC; Siraj Siddiqi, OSF HealthCare; Romit Roy Choudhury, UIUC

SPRING 2021

Every Shot Counts: Development of a Novel Predictive Model and Toolkit to Predict and Decrease Vaccine-Preventable Rural COVID-19 Deaths
Jimeng Sun, UIUC; Scott Barrows, OSF HealthCare/UICOMP/UIUC; Adam Cross, OSF HealthCare/UICOMP/UIUC; Ann Willemsen-Dunlap, OSF HealthCare/UICOMP/UIUC; Mary Stapel, OSF HealthCare

Human Factors in the Use of Telepresence Robots after the COVID-19 Pandemic
Inki Kim, UIUC; T. Kesh Kesavadas, UIUC; Jon Michel, OSF HealthCare; Shandra Jamison, UIUC

COVID-19 Infection Levels in Central Illinois Communities without Access to Frequent Testing: A Sewage Monitoring and Epidemiological Modeling Study
Thanh (Helen) Nguyen, UIUC; Ahmed Elbanna, UIUC; Art Schmidt, UIUC; Joanna Shisler, UIUC; John Farrell, OSF HealthCare

Building a Motivational, Interviewing Conversational Agent (MintBot) for Promoting COVID-19 Vaccination Among People with Multiple Sclerosis
Jessie Chin, UIUC; Suma Bhat, UIUC; Chung-Yi Chiu, UIUC; Jared Rogers, OSF HealthCare; Brian Laird, OSF HealthCare
Early Insights and Recommendation for Implementing a COVID-19 Saliva-Based Testing Program in K-12 Schools: Lessons Learned from Four Under-Resourced Schools
Rebecca Lee Smith, UIUC; Thanh (Helen) Nguyen, UIUC; Nicole Delinski, OSF HealthCare; Michaelene Ostrosky, UIUC; W. Catherine Cheung, UIUC

Voice Vitals: A New Approach for Anxiety and Depression Screening in the Era of COVID-19
Mary Pietrowicz, UIUC; Ryan Finkenbine, UICOMP/OSF HealthCare; Sarah Donohue, UICOMP

How to Design and Operate End-to-End Vaccine Deployment Using Social Media, Addressing Supply Chain Allocation Constraints and Utilizing Telemedicine
Anton Ivanov, UIUC; Sunhonmesh Bose, UIUC; Albert England III, UIUC/UICOMP/OSF HealthCare; Ashen Eren Mehmet, UIUC; Ujjal Mukherjee, UIUC; Sridhar Seshadri, UIUC; Sebastian Souyns, UIUC; Yuqian Xu, UIUC

FALL 2021

High Trust Patient Outreach
Gang Wang, UIUC; Jonathan Handler, OSF HealthCare; Roopa Foulger, OSF HealthCare; Nick Heuermann, OSF HealthCare; Cody Zevnick, OSF HealthCare

Point-Cloud Segmentation for Daily Adaptive Prostate Therapeutic Planning
Angela Di Fulvio, UIUC; Gregory Hermann, UICOMP

Improving the Lives of Children with Asthma by Individualizing the Asthma Care Plan Based on Children’s Home Exposure to Asthma Triggers
Elise Albers, OSF HealthCare; Margarita Guarin, UICOMP; Ginger Barton, OSF HealthCare; George Heintz, UIUC; Mary Stapel, OSF HealthCare; Heather Boore, OSF HealthCare

Development of a Trusted Execution Enclave to Securely Link Computational Modeling to a Medical Imaging Database
Matthew Bramlet, OSF HealthCare; Brad Sutton, UIUC; Andrew Miller, UIUC; Kyle Soska, UIUC

Physiological and Anatomical Biomarkers for Epilepsy Antiepileptic Drug Therapy
Hua Li, UIUC; Michael Xu, OSF HealthCare; Fan Lam, UIUC; Yogatheesan Varatharajah, UIUC

Development of a Coordinated Community-Focused Network of Antibiotic Use and Resistance Data
Ellen Moodie, UIUC; Helen Nguyen, UIUC; Rebecca Smith, UIUC; Rachel Whitaker, UIUC; Brian Laird, OSF HealthCare

Healing Healthcare Disparities among BIPOC Patients through Virtual Reality Cultural Competence Training
Charee Thompson, UIUC; Mardia Bishop, UIUC; Krishan Kataria, OSF HealthCare; Chrysafis Vogiatzis, UIUC

Hands Down: Empowering Children and Families through CPR Education
Paul Jeziorczak, OSF HealthCare; Inki Kim, UIUC

Smart Phone App for Migraine Referral Optimization Using MIGRO (Migraine Referral Optimization)
Christopher Gondi, UICOMP; Lusine Demerkhanyan, UICOMP; Yelena Nersesyan, UICOMP; Inki Kim, UIUC

Prospective Observational Study: Identification of Brain Micrometastatic Disease Using Ultra-High Field Magnetic Resonance Imaging
Wael Mostafa, Carle; Aaron Anderson, UIUC; Paul Arnold, Carle; Anant Naik, Carle; Annabelle Shaffner, Carle; Vamsi Vasireddy, Carle; Sinisa Stanic, Carle; Blake Weis, Carle; Charee Thompson, UIUC; Brad Sutton, UIUC; Tracey Mecno Wszalek, UIUC; Andrew Tsung, OSF HealthCare

Digitized Neurological Exams (DNE) with Smartphones/Tablets: A Clinical Recording Pilot Study
Minh Do, UIUC; Chris Zallek, OSF HealthCare, George Heintz, UIUC

Low Pathogen Counts in Whole Blood Samples
Rashid Bashir, UIUC; Enrique Valera, UIUC; John Farrell, OSF HealthCare

Facial Pressure Ulcer Detection Using a Wearable Sensor Patch
Anusha Muralidhara, UIUC; Placid Ferreira, UIUC; Shandra Jamison, UIUC; Deborah McCarver, OSF HealthCare

TriWave: Inverse Wave Signal Processing for Non-Invasive, Non-Pharmaceutical Migraine Therapy
Christopher Gondi, UICOMP; Lusine Demerkhanyan, UICOMP; Hrachya Nersesyan, UICOMP; Inki Kim, UIUC

A Deep-Learning Augmented Point-of-Care Device for Antibody Quantification
Yang Zhao, UIUC; Yun-Shun Chen, UIUC; John Farrell, OSF HealthCare

Virtual Reality Simulation Training for Neonatal Procedures
Nicole Rau, UICOMP; M. Jawed Javed, UICOMP; Harris Nisar, UIUC
FALL 2021 (cont.)

Monitoring the “Health” of the Hospital: Using Wearable Sensors to Monitor Nursing Stress
Abigail Wooldridge, UIUC; Deborah McCarter, OSF HealthCare; Alexandra Chronopolou, UIUC

Augmented Reality Assisted Endotracheal Intubation (ETI) Trainer
Anusha Muralidharan, UIUC; T. Kesh Kesavadas, UIUC; Praveen Kumar, UICOMP; Neil Mehra, UICOMP

FlightPath and NeuroDNA: Creating a New Interoperability Standard for the Evaluation of Neurocognitive Impairment
Adam Cross, OSF HealthCare; Inki Kim, UIUC

Early Detection and Prediction of Facial Expression for Parkinsonism Powered by Few-Shot Learning
Yuxiong Wang, UIUC; Christopher Zallek, OSF HealthCare; Manuel Hernandez, UIUC; George Heintz, UIUC

SPRING 2022

CliniPane: Developing a “Third Paradigm” Clinical Intelligence Application
Jonathan Handler, OSF HealthCare; Roopa Foulger, OSF HealthCare; Omar Elabd, UIUC; Marlene Granda, UIUC

Enhanced Focality of Transcranial Magnetic Stimulation Using an Ultrathin Wearable Metasurface for Treating Neurological Disorders
Yang Zhao, UIUC; Yun-Shung Chen, UIUC; Huan Hunyh, OSF HealthCare

VRtual Ed: A Virtual Three-Dimensional Educational Platform for Healthcare Students
Avinash Gupta, UIUC; Lydia Lee, UIUC; John Shillat, OSF HealthCare; Maureen Matthews, OSF HealthCare; Celeste Schultz, UIC; Samantha Bothwell, UIC

CanPredict: An Algorithm for Improved Pancreatic Ductal Adenocarcinoma Detection
Sonia Orcutt, UICOMP; Lusine Demirkhanyan, UICOMP; Ravishankar Iyer, UIUC; Andrew Darr, UIUC; Mosbah Aouad, UIUC; Christopher Gondi, UIUC; James Weldy, OSF HealthCare; Nathan Pritzker, OSF HealthCare

Koopman Framework for Detecting Mental Health Challenges in Multimodal Wearable Data
Manuel E. Hernandez, UIUC; Jean Clore, UIUC; Richard Sowers, UIUC; Elizabeth Hsiao-Wecksler, UIUC

Incentivization of Health Care Initiatives with Cryptocurrency in a Zero-Knowledge System
Jonathan Handler, OSF HealthCare; Tate Ralph, OSF HealthCare; Wencui Han, UIUC; Andrew Miller, UIUC

Toward Machine Learned Aortic Arch Measured Diameters
Matthew Bramlet, UICOMP; Brad Sutton, UIUC

Development of a ChatBot for Delivering Long-Term Motivational Interviewing for Improving Exercise Adherence in Hemodialysis Patients
Jessie Chin, UIUC; Suma Bhat, UIUC; Chung-Yi Chiu, UIUC; Ken Wilund, UIUC; Rehan Shah, UIUC; Ben Pflederer, OSF HealthCare

Pediatric Automated Intelligent Respiratory Support (PAIRS): Development of an Automatic Oxygen and Flow Weaning System for Pediatrics
Keith Hanson, UICOMP; Ramavarapu Sreenivas, UIUC; Adam Cross, OSF HealthCare; Roopa Foulger, OSF HealthCare; Jonathan Gehlbach, OSF HealthCare

Development of a Pneumothorax Computational Model Toward Lung Metastasis Visualization and Modeling
Matthew Bramley, UICOMP; Brad Sutton, UIUC; Dan Robertson, OSF HealthCare; Alex Waltz, OSF HealthCare; Olivia Bryan, OSF HealthCare

Advanced Auscultation Audio Algorithmic Analysis
Adam Cross, OSF HealthCare; Jennifer Amos, UIUC; Eliot Bethke, UIUC

HOW TO APPLY TO JUMP ARCHES
Do you have an idea that could change an important aspect of health care? Apply to Jump ARCHES to bring your idea to life by collaborating with clinicians and scientists from OSF HealthCare and University of Illinois system. Jump ARCHES accepts proposals in the Spring and Fall. Subscribe to the Center’s newsletter at https://forms.illinois.edu/sec/3281355 to be notified of future funding cycles.
The Jump Simulation Center Urbana has grown exponentially over the past two years as a place of innovative learning and problem-solving for both our campus and community. The Center provides all the simulation training needs for the Carle Illinois College of Medicine, occasional training for local hospitals in the Champaign-Urbana area, and assistance with Jump ARCHES grant research.

The Center presented a full week of simulation activities for the M4 Transition to Residency Bootcamp for students in their last year of medical school here at Illinois. Simulations focused on emergency skills, stroke protocol, and using catheters, among other skills that students will need in their first year of residency.

Rantoul Multicultural Community Center

The Center is doing incredible work to enhance the visibility and importance of simulation training in medical education, especially to the next generation of doctors. They hosted students from the Rantoul Multicultural Community Center for a one-day field trip to tour the medical school, learn about different medical procedures, and see equipment. The goal was to expose Latino students to medicine at Illinois, hoping to narrow the gap between the underserved Latino community and healthcare providers.

LEARN AT JUMP SIMULATION CENTER!

View all of our facilities and make an appointment at:
https://healtheng.illinois.edu/jumpsimulationcenter

873
INSTRUCTION HOURS

48
Unique Simulations

20
Instructors
This is a unique, interdisciplinary experience where students apply their knowledge to health care-related technologies in simulation, VR, and health data analytics. Every summer, a group of undergraduate interns from various majors, ranging from computer science to statistics and bioengineering, are paired up with Jump ARCHES projects to assist professors, doctors, and researchers with their work. All projects covered the medical field in some way, whether it be through new, interactive methods of training future doctors to assisting patients at home.

The internship gives undergraduate students a chance to work on innovation that comes from the intersection of healthcare and engineering. Summer 2022 was slightly different compared to internships of years past. For the first time, Jump ARCHES grantees were offered the opportunity to have a fully funded summer intern work on their projects.

Health Care Engineering Systems Center Simulation Engineer Lydia Lee says this sort of experience is unique not only for interns, but also researchers.

"It allows clinicians access to engineering students and it allows the students and the PIs here access to clinicians, which is really important in developing these healthcare innovations,” says Lee. "Jump ARCHES in general allows for collaboration that is hard to find if this organization didn’t exist. If you’re working in industry or another university that doesn’t have access to clinicians, that’s huge for the development of your project. But Jump ARCHES really allows for U of I and OSF to build that relationship. "

2022 Interns Meg Li (Statistics & CS) and Claudia Reyes (Bioengineering) presenting “Hands Down: Empowering Children and Families through CPR Education”

2022 Intern Kareem Habayeb (Mechanical Engineering) presenting research on a high-fidelity ECMO trainer
The Health Care Engineering Systems Center has successfully delivered two years of engaging, informative, VIRTUAL events! Our staff and presenters made the most of it, and we were excited to welcome audiences from all around the globe for our symposia and seminars. We look forward to hosting events in-person this year!

**OCTOBER 13, 2020**
7th Health Care Engineering Systems Symposium

**DECEMBER 9, 2020**
COVID-19 Monthly Seminar Series: Personal Protective Equipment

**OCTOBER 7, 2021**
Health Care Engineering Seminar:
Health Informatics on FHIR: A Global Perspective by Dr. Mark Braunstein of Georgia Tech

**NOVEMBER 11, 2020**
COVID-19 Monthly Seminar Series: AI & Data Science

**APRIL 9, 2021**
4th Illinois Health Data Analytics Summit: Vaccination & Post-COVID Health Challenges

**OCTOBER 13, 2021**
8th Health Care Engineering Systems Symposium & Interactive Expo:
Position: Post-COVID Community Health

**DECEMBER 14, 2021**
Blockchain Seminar by Professor Lav Varshney of the University of Illinois Urbana-Champaign

**APRIL 4, 2022**
5th Illinois Health Data Analytics Summit: AI for Medicine in the Age of Many Small Data Sets
THE HCESC TEAM

Elizabeth Hsiao-Wecksler, Ph.D.
Interim Director

Antonios Michalos, M.D.
Associate Director

George Heintz
Assistant Director for Health Data Analytics

Inki Kim, Ph.D.
Assistant Director of Research in Medical Simulation

Lydia Lee
Simulation Engineer

Shandra Jamison
Simulation Operations Manager

Anusha Muralidharan
Simulation Engineer

Harris Nisar
Simulation Engineer

Michelle Osborne
Office Manager

Srikar Annamraju, Ph.D.
Postdoctoral Research Associate

Mae Vogel
Curriculum Content Coordinator

Athena Ryals
Simulation Operations Specialist
GET IN TOUCH WITH HCESC

HEALTH CARE ENGINEERING SYSTEMS CENTER

@ILHEALTHENG

HEALTH CARE ENGINEERING SYSTEMS CENTER

Subscribe to our monthly e-newsletter for information on upcoming events, Jump ARCHES Requests for Proposals, and more:

https://healtheng.illinois.edu/about/news

LET’S COLLABORATE

At the Health Care Engineering Systems Center, we work with campus-wide, domestic, and international entities to discover innovative answers to some of the most pressing health care issues.

We pride ourselves in working with industry partners to achieve better performance through data science, simulation, education, and smart health technologies. Got an idea? Get in touch!

HCESC@ILLINOIS.EDU | WWW.HEALTHENG.ILLINOIS.EDU