

Assistant Professor or Associate Professor, Knights Digital
Twin Strategic Initiative (KDT)
University of Central Florida

Direct Link: <https://www.AcademicKeys.com/r?job=250301>

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Posted Dec. 11, 2024, set to expire Jun. 12, 2025

Job Title	Assistant Professor or Associate Professor, Knights Digital Twin Strategic Initiative (KDT)
Department	College of Engineering and Computer Science
Institution	University of Central Florida Orlando, Florida
Date Posted	Dec. 11, 2024
Application Deadline	Open until filled
Position Start Date	Aug. 8, 2025
Job Categories	Assistant Professor Associate Professor
Academic Field(s)	Water Resources Engineering Transportation Engineering Structural Engineering Ocean Engineering Industrial & Systems Engineering Geotechnical Ecological and Environmental Computer Science Construction Engineering/Management Civil Engineering
Apply Online Here	https://jobs.ucf.edu/jobs/assistant-professor-or-associate-professor-knights-digital-twin-strategic-initiative-kdt-orlando-florida-united-states-dcc53834-812f-413f-be69-949598fe4ce4

Apply By Email

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Job Description

The Opportunity

The University of Central Florida (UCF) has committed to the challenge of shaping the emerging digital worlds through the Knights Digital Twin Strategic Initiative (KDT). The KDT initiative capitalizes on UCF's modeling and simulation (M&S) foundations and strengths to develop new collaboration and partnership paradigms to launch and scale research and business ventures that will enable us to address the new challenges of rapid and disruptive innovation. The vibrant Central Florida ecosystem houses the second largest research park in the country, has over 300 industry collaborators and partners in M&S and engineering in the region, and includes the space coast with emerging and rapidly growing commercial and government opportunities for partnerships. Areas of applications include but are not limited to defense, national security, space operations, semiconductor fabrication, logistics and supply chains, transportation, and smart cities.

The UCF KDT Initiative is inviting applications for multiple 9-month, full-time faculty positions at the rank of assistant professor (tenure-earning) or associate professor (tenured) to conduct research, development, and teaching with multidisciplinary teams in areas related to Digital Twins (DT). The tenure home for these positions will be in the College of Engineering and Computer Science. Regardless of the tenure home, the faculty members are expected to contribute to our strategic focus on Digital Twin design and implementation.

We invite applications from candidates with strong background in the following areas:

Modeling, Simulation, and Training (SMST): Real-time modeling, simulation and visualization; Artificial intelligence (AI), machine learning (ML), deep learning (DL), and data science; Computational Modeling; Brain-inspired AI and cognitive neuroscience.

Computer Science: Virtual, augmented, and mixed reality, Digital twin software architecture, Real-time computer graphics, Immersive data analytics, ML, and Generative AI algorithms and applications.

Civil, Environmental, and Construction Engineering: Digital twinning applications in water and coastal systems, structures and infrastructure, asset management, transportation, smart cities, geotechnical, and the environment including multi-scale simulation, visualization, sensing/monitoring, multi-physics and ML-based prediction approaches, and real-time or future human-infrastructure interaction.

Industrial Engineering and Management Systems: Digital twin for organizations/enterprises, and

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industrial and service operations (Industry 5.0). Model-based systems engineering for product life cycle. M&S for human-machine interactions and human neural signatures and brain-computer interfaces.

Faculty hired under the KDT initiative are expected to develop strong research activities aligned with the overarching vision of the initiative, develop new and participate in existing multidisciplinary activities and projects, train postdoctoral scholars, serve as primary advisor for graduate students, and mentor and interact with undergraduate students. Salary and start-up package will be commensurate with the candidate's qualifications.

UCF is one of the nation's largest universities with a diverse student body of more than 68,000 students, 240 degree programs, and more than 12,000 employees. UCF is an economic engine, attracting and supporting industries vital to the region's future while providing students with real-world experiences that help them succeed after graduation. We encourage you to learn more about UCF at <http://www.ucf.edu>, SMST at <https://www.ist.ucf.edu>, and the CECS at <http://www.cecs.ucf.edu>.

Minimum Qualifications:

- A doctoral degree from an accredited institution in an area appropriate to this position at the time of the appointment. This includes but is not limited to candidates with terminal degrees in Modeling and Simulation, Engineering, Computer Science, Data Science, Informatics, Civil Engineering, Industrial Engineering, or other areas relevant to the KDT initiative.
- Candidates must demonstrate a strong record of research.
- To be eligible for appointment as a tenured associate professor upon hire, the selected candidate must have a demonstrated record of teaching, research, and service commensurate with rank in a department/school related to the candidate's area of expertise.

Preferred Qualifications:

- Candidates with an exceptional record of scholarly research and highly recognized for their technical contributions and leadership in their areas of expertise.

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- Academic experience in design and development of digital twin for research, operational, and/or human systems in one or more of the application areas listed above.
- Demonstrated teaching skills, and ability to effectively communicate with and mentor students and postdoctoral scholars.
- Demonstrated effective communication and collaboration skills across disciplines and an established research network at the local, national, and/or international levels.
- Potential to initiate and obtain funding for multi-disciplinary research activities.

Additional Application Materials Required:

UCF requires all applications and supporting documents be submitted electronically through the Human Resources employment opportunities website, <https://www.ucf.edu/jobs/>. In addition to the online application, candidates should upload a cover letter, a current curriculum vitae, a research statement, teaching statement/vision, and a list with contact information for three (3) professional references.

NOTE: Please have all documents ready when applying so they can be simultaneously uploaded. Once the online submission process is finalized, the system does not allow applicants to submit additional documents later.

The selected candidate will be required to submit official transcripts (and, as applicable, U.S. degree equivalency evaluations) documenting the conferral of their qualifying academic credentials.

Questions regarding this search should be directed to: Jennifer Sutton, Search Manager, at Jennifer.Sutton@ucf.edu.

Special Instructions to the Applicants:

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Candidates are encouraged to specify the (a) school or department in the College of Engineering and Computer Science, and (b) rank of interest.

Job Close Date:

Open until filled.

Note to applicants: Please keep in mind that a job posted as '*Open until filled*' may close at any time without notice. As such, we encourage you to submit your application and all required documentation as quickly as possible to ensure consideration for the posted position.

Are you ready to unleash YOUR potential?

As a next-generation public research university and Forbes-ranked top employer in Florida, we are a community of thinkers, doers, creators, innovators, healers, and leaders striving to create broader prosperity and help shape a better future. No matter what your role is, when you join Knight Nation, you'll play an integral role at one of the most impactful universities in the country. You'll be met with opportunities to connect and collaborate with talented faculty, staff, and students across 13 colleges and multiple campuses, engaging in impactful work that makes a positive difference. Your time at UCF will provide you with many meaningful opportunities to grow, you'll work alongside talented colleagues on complex projects that will challenge you and help you gain new skills and you'll have countless rewarding experiences that go well beyond a paycheck.

Working at UCF has its perks! UCF offers:

- Benefit packages, including Medical, Dental, Vision, Life Insurance, Flexible Spending, and Employee Assistance Program.?
- Paid time off, including annual (12-month faculty) and sick time off and paid holidays.
- Retirement savings options.?
- Employee discounts, including tickets to many Orlando attractions.?
- Education assistance.
- Flexible work environment.?
- And more...For more benefits information, view the UCF Employee Benefits Guide [click here](#).

Unless explicitly stated on the job posting, it is UCF's expectation that an employee of UCF will reside in Florida as of the date the employment begins.

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Additional Requirements related to Research Positions:

Pursuant to Florida State Statute 1010.35, prior to offering employment to certain individuals in research-related positions, UCF is required to conduct additional screening. Applicants subject to additional screening include any citizen of a foreign country who is not a permanent resident of the U.S., or who is a citizen or permanent resident but is affiliated with or has had at least 1 year of education, employment, or training in China, Cuba, Iran, Russia, North Korea, Syria, or Venezuela.

The additional screening requirements only apply to research-related positions, including, but not limited to faculty, graduate positions, individuals compensated by research grants or contract funds, post-doctoral positions, undergraduate positions, visiting assistant professors, and visiting research associates.

Department

College of Engineering and Computer Science (CECS)

Work Schedule

Varies

Type of Appointment

Regular

Expected Salary

Negotiable

Equal Employment Opportunity Statement:

The University of Central Florida is an Equal Opportunity/Affirmative Action Employer including Disabled/Vets. Click on [UCF's Equal Opportunity Statement](#) to view the President's Statement.

The UCF affirmative action plans for qualified individuals with disabilities and protected Veterans are available for inspection in the Office of Institutional Equity, Monday through Friday, from 9:00 a.m. to 5:00 p.m., upon request.

As a Florida public university, UCF makes all application materials and selection procedures available



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to the public upon request.

The University of Central Florida is proud to be a smoke-free campus and an E-Verify employer.

EEO/AA Policy

UCF is an equal opportunity/affirmative action employer. All qualified applicants are encouraged to apply, including minorities, women, veterans and individuals with disabilities. As a Florida public university, UCF makes all application materials and selection procedures available to the public upon request.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact

University of Central Florida
Orlando, FL 32816