***Job Reference:*** ***2808560***

***UTRCI Research Scientist, Optimization***

**Grade: L6-L5**

United Technologies Research Center (UTRC) delivers advanced technologies to the businesses of United Technologies Corporation (UTC). UTC (NYSE:UTX) is a diversified company that provides a broad range of high-technology products and services to the global aerospace and building systems industries. UTC's commercial businesses are Otis elevators and escalators and UTC Climate, Controls & Security, a leading provider of heating, ventilation, air conditioning, fire and security systems, building automation and controls. UTC’s aerospace businesses are Sikorsky Aircraft Corporation and the new UTC Propulsion & Aerospace Systems, which includes Pratt & Whitney aircraft engines and UTC Aerospace Systems aerospace products.

UTRC partners with UTC business units and external research organizations to expand the boundaries of science and technology through research and innovation, delivering technology options that meet and anticipate the needs of the marketplace.

Founded in 1929, UTRC is located in East Hartford, Connecticut (U.S.), with an office in Berkeley, California, and research and development centers in Shanghai, China, and Cork, Ireland.

United Technologies Research Centre Ireland, Ltd. (UTRCI) is UTRC’s European research hub, created to fully leverage a global network of innovation. UTRCI works with universities, research institutes, and industry throughout Europe and beyond to further its research and development mission. UTRCI invites qualified individuals to apply for the following position in its Cork office. A competitive compensation and benefits package will be provided to the successful candidates.

Learn more @ [www.utrc.utc.com](http://www.utrc.utc.com)

**Job Responsibilities**

UTRCI seeks candidates with expertise in optimization and operations research with applications in high performance buildings and distributed energy systems. The successful candidate will have demonstrated skills in integer, MINLP, combinatorial and large-scale numerical optimization, and familiarity with the use of associated software tools and platforms, such as GAMS, AMPL, CPLEX, IPOPT, and GUROBI. Expertise in formulation and analysis of business and engineering models is desirable. In addition, knowledge of topics in the areas of simulation and optimization of hybrid and differential algebraic equation systems, finite state machines, probability theory and stochastic analysis would be a plus. Experience in application areas of optimal design and operation of buildings and energy microgrid systems would be highly desired. The successful candidate will work as part of technology teams in developing new technologies that will provide a competitive advantage for UTC’s business units.

The ideal candidate is a self-starter who works well in an international teaming environment, is extremely well-organized and has excellent interpersonal, leadership and communication skills. Besides technical excellence, an entrepreneurial attitude towards innovation is essential.

**Education**

A doctoral degree in Engineering, Mathematics, Operations Research, Statistics, or a related field, with an emphasis on Optimization, or a Master’s degree with a minimum of 5 years of industrial or academic experience is required.

**Experience/Qualifications**

The ideal candidate will have experience in several of the following areas:

* Experience in formulating, solving, and creating software tools for both discrete and continuous optimization problems.
* Demonstrated ability to formulate and solve linear, non-linear, integer, MINLP, combinatorial and large-scale numerical optimization.
* MATLAB, Simulink, C, C++, and optimization software tools and platforms, such as GAMS, AMPL, CPLEX, IPOPT, and GUROBI.
* Exceptional communication skills, demonstrated commitment to deliver results, adaptability and the ability to work in a teaming environment.
* Ability to execute technology research plans to successfully achieve desired technical outcomes within time and budget constraints.
* Some travel required.

In addition, experience in the following areas will be highly regarded:

* Experience in solving real world optimization problems in an industrial setting.
* Knowledge of topics in the areas of simulation and optimization of hybrid and differential algebraic equation systems, finite state machines, probability theory and stochastic analysis.
* Understanding of building physics, including heat transfer and fluid flow.
* Familiarity with Distributed Power and Energy storage systems, including solar PV, wind turbines, biomass, cogeneration, and battery technologies.
* Experience working with Government agencies and proposal development.

**Additional Comments**

This position is based at UTRC’s European hub in Cork, Ireland. To be eligible to apply, candidates must be legally entitled to work and reside in Ireland.

Candidates can apply online at: <http://www.utrc.utc.com/pages/Career/Job_openings.html> by selecting “Ireland” from the “Country” pull-down menu and clicking “Begin Search”

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