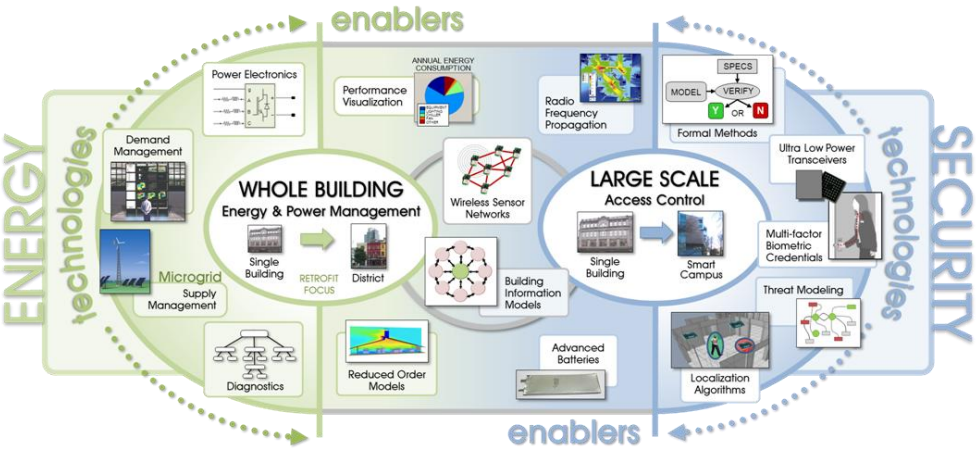
United Technologies Research Center

UTRC Ireland research portfolio…



We turn scientific vision into innovative technologies and breakthrough solutions

We're growing. Come join us!

At its European research hub in Cork, Ireland, UTRC undertakes research and development for the next generation of **energy, security,** and **aerospace systems**.

We are seeking world-class engineers and researchers with expertise in **control systems** and **optimization**.

Interested candidates with exceptional academic credentials and a demonstrated ability to stand out who hold a Ph.D. or M.S. degree in a relevant engineering or scientific discipline should read more and apply at:

www.utrc.utc.com

United Technologies (UTC) [NYSE:UTX] is a Fortune® 50 diversified company that provides a broad range of high-technology products and services to the global aerospace and building systems industries.

United Technologies Research Center (UTRC) delivers advanced technologies to the businesses of UTC to improve performance, energy efficiency and cost of company products and processes.

UTRC is headquartered in East Hartford, Connecticut, with an office in Berkeley, California, and research and development centers in Shanghai, China and **Cork, Ireland.**

Otis I Pratt & Whitney I Sikorsky I UTC Aerospace Systems I UTC Climate, Controls & Security I UTRC




United Technologies Research Center

UTRC Ireland employment opportunities

control systems

Title: UTRCI Research Scientist, Control Systems

Education: A minimum of a doctoral degree in Mechanical, Electrical or Control engineering, or a Master's degree with a minimum of 5 years of industrial or academic relevant experience.

Experience/Qualifications:

- Expert knowledge in selecting control algorithm/architecture based on scientific principles and product integration needs.
- Ability to synthesize optimal control system architectures and algorithms.
- Ability to develop physics-based, non-linear dynamic control and analysis-oriented system level models.
- Experience applying system identification techniques and knowledge of MIMO systems parameter identification methods. Experience with estimation techniques, such as Kalman Filters.
- Demonstrated ability to analyze and optimize complex systems including nonlinear, time-varying dynamical subsystems with uncertain parameters.
- Experience providing control implementation specifications both for rapid prototyping and industrial code implementation.
- Experience with Matlab, Simulink, C, C++ is essential. Experience with Dymola and optimization software (e.g. CPLEX, IPOPT, GUROBI) is a plus.
- Familiarity with HVAC equipment and building automation systems technologies preferred.
- Ability to execute technology research plans to successfully achieve desired technical outcomes within time and budget constraints.

Location: 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.

optimization

Title: UTRCI Research Scientist, Optimization

Education: Ph.D. in Engineering, Mathematics, Operations Research, Statistics, or a related field, or a Master's degree and 5+ years of industrial or academic experience.

Experience/Qualifications:

- 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.

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.
- Experience working with Government agencies and proposal development.

Location: 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.

See other job opportunities and apply at **www.utrc.utc.com**