

# Education

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## UCC research professor elected fellow of the AAAS

PROFESSOR Eugene C. Freuder, the Director of the Cork Constraint Computation Centre in the Computer Science Department of University College Cork has been elected a Fellow of the American Association for the Advancement of Science (AAAS).

He is one of only 14 new Fellows elected this year in the Information, Computing, and Communication section of AAAS, out of a total of 376 new Fellows. AAAS is an international non-profit organisation dedicated to advancing science around the world. Founded in 1848, AAAS serves some 262 affiliated societies and academies of science, serving 10 million individuals.

**The 2005 AAAS fellows were announced in the October 28 issue of the AAAS journal *Science*. *Science* has the largest paid circulation of any peer-reviewed general science journal in the world, with an estimated total readership of one million.**

Each year the AAAS Council elects members whose "efforts on behalf of the advancement of science or its applications are scientifically or socially distinguished." Professor Freuder is being honoured for "fundamental and sustained contributions to constraint-based reasoning in artificial intelligence, for service to the constraint programming community, and for the advancement of Irish

computer science."

Professor Freuder came to Ireland four years ago. After learning of the AAAS election, Professor Freuder commented: "I am very honoured to be selected as a Fellow of such a distinguished organisation as AAAS. I would like to take this occasion to acknowledge the many individuals, agencies, and companies that have supported my work, and in particular to acknowledge the support I have received in Ireland from my colleagues at the Cork Constraint Computation Centre, and from Science Foundation Ireland, Enterprise Ireland, and the Embark Initiative."

Professor Freuder is a Fellow of the American and European artificial intelligence societies, and the recipient of Research Excellence awards from the Association for Constraint Programming and the University of New Hampshire.

He was the founding Editor-in-Chief of the Constraints journal and served as the Executive Chair of the Organising Committee for the series of Constraint Programming conferences.

He holds a €7.5m Fellow grant from Science Foundation Ireland and is one of the strand leaders in the €20 million Science Foundation Ireland Centre for Telecommunications

Value-chain-driven Research.

He has served on the Technical Advisory Boards of Ilog and Celcorp, and as the Senior Technical Advisor of Ecora.

The Cork Constraint Computation Centre (4C) develops computer software, and the underlying science, to help businesses and individuals make decisions.

Recent projects have included work on supply logistics with Cork University hospital, on manufacturing optimisation with Bausch & Lomb in Waterford, and on value chain optimisation with Bell Labs in Dublin. Constraint satisfaction or optimisation problems are ubiquitous.

A simple, familiar example: scheduling a meeting involves satisfying temporal constraints on the availability of the participants. Constraints arise in design and configuration, planning and scheduling, diagnosis and testing, and in many other contexts.

Constraint programming can solve problems in telecommunications, supply chain management, internet commerce, logistics, factory planning, workforce scheduling, transportation, network management, security, electronic and mechanical design, bioinformatics, and many other fields.