

UU Research Pushing Back the Frontiers of Space

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Cutting edge research at the University of Ulster into how to make complex computers and communications systems manage themselves could power the next generation of US space probes, it was revealed today.

Roy Sterritt, from the University's Computer Science Research Institute, was today addressing NASA scientists in Washington about his research. Mr Sterritt said that current computing networks are now so complex and difficult to manage that by 2010, 220 million people - greater than the current working population of the USA - will have to be employed as IT support workers just to keep them running.

He argued that the only viable long-term solution is to create computer systems that can manage themselves.

Mr Sterritt and his team at UU - along with experts from BT - are exploring ways to enable telecommunications and computing networks to become self-healing.

NASA wanted to hear about this type of computing - known as autonomic computing - and invited Mr Sterritt to its Goddard Flight Center, an honour normally reserved for scientists from top US universities.

Autonomic computing operates like the human body's autonomic nervous system which self-manages biological systems. It regulates vital functions such as telling the heart how fast to beat and monitors and

adjusts blood flow without conscious effort.

Mr Sterritt's research is aimed at developing computer systems that would work in the same way without requiring constant human intervention.

Mike Hinchey, director of NASA's Software Engineering Laboratory, said: "Autonomic computing research has been identified by NASA as having potential to contribute to their goals of autonomy and cost reduction in future space exploration missions.

"ANTS - Autonomous Nano-Technology Swarm - is one such mission that will launch sometime between 2020 and 2030 (any day now in terms of NASA missions). The mission is viewed as the prototype for how many future unmanned missions will be developed and how future space exploration will exploit autonomous and autonomic behaviour."

Last year Mr Sterritt was awarded a BT Exact Short-Term Research Fellowship, based at BT's Riverside Tower complex in Belfast to help drive forward his research work.

Source: University of Ulster

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