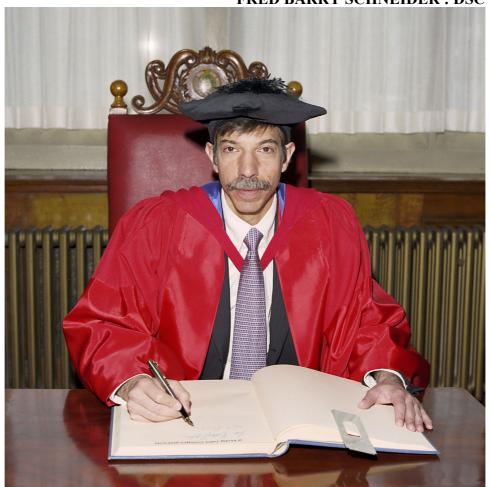Mr Chancellor,

A few days ago we celebrated the fiftieth anniversary of the discovery of the structure of DNA. The subsequent breaking of the genetic code and the completion of the Human Genome Project have been hailed by some as the greatest scientific advance in centuries. But that advance was only possible because of another equally profound development; that great British invention the computer. Over the last thirty years, the computer has moved from a glorified adding machine the size of a small house to immensely powerful tiny devices at the core of every aspect of our lives. Nowhere is that more obvious than in our academic world. Every aspect of teaching and research rests on the computer and most academics spend hours every day at a computer screen. Our University has one of Europe's most prestigious computing science departments. For thirty

years we organised a renowned International Seminar of Computer Science and on two occasions we were honoured by the presence as a speaker of Fred B Schneider, Professor of Computer Science at Cornell University in New York since 1993.

Fred Schneider has lived and breathed computing science since his high school meeting with some old computer equipment. He was one of the pupils with, as he put it, a bent toward puttering with electronics. He was at first preoccupied by the fancy wiring and entered Cornell University as an undergraduate in electrical engineering. A year later he switched to a "self defined" double major, computer science and electrical engineering. He was in effect the first undergraduate at that university in this new field since it had been taught only as a postgraduate qualification up to that point. In 1975 he went from Cornell to State University of New York at Stony Brook where he earned a Masters and then a PhD in the subject. Having started graduate school expecting to head into industry he realised research was too much fun and decided to seek a faculty position. To his surprise and delight his alma mater Cornell University, one of the world's leading computer science departments, offered him a faculty position.

His prolific career as an author of scientific articles and books began 25 years ago and now includes over 120 important publications and conference proceedings. Early forays into print included his report based on his presentation in Jerusalem in 1978 entitled "On language restrictions to ensure deterministic behavior in concurrent systems". It is noteworthy that his titles become more accessible as one reads down his publications such as a paper in press called "tolerating Malicious Gossip" or his recent books "On concurrent programming" and "Trust in Cyberspace". The former is now cited as essential reading for those

involved in the field while the latter had its origins in the Committee on Trustworthy Computing. This group, which he chaired, was established by the US National Research Council. He is editor in chief of Distributed Computing, on the editorial board of six key research journals and managing editor for a prestigious book series published by Springer Verlag.

It is clear that Fred Schneider has earned the respect of his peers. He has been nominated for the Distinguished Service award by ACM, the world's first and largest society for computer scientists. In 2001, the UK EPSRC, one of our government research councils, invited him to chair their international review of Computer Science. He is a member of the influential Programming methodology Working Group of the International Federation of Information Processing Societies and has served on or chaired over 30 international Programme Committees. Last but most certainly not least he has the confidence of industry. He is an advisor, among others, to Intel, IBM, Microsoft, Javasoft and the genetic research company deCODE Genetics.

As I prepared this presentation, my wife told me that her sister's credit card details had been stolen following a web based purchase. I was brought back to the ubiquitous role of the computer and the pivotal importance of security, not least in my own field of genetic testing. Not only do we have the threat of criminals but now we also have the threat of terrorism. I'm sure others share my comfort in knowing that Fred is chief scientist for New York's recently created cybersecurity Griffiss Institute for Information Assurance. We need Fred Schneider and others like him to protect the fabric of our 21st century society. We need him as a communicator and teacher. His book "A logical Approach to Discrete

Math" published 10 years ago has become a popular teaching aid in the development of a new generation of defenders of cyberspace.

By now many will have begun to imagine Fred as the first officer on the Starship Enterprise so I felt we should try to see something of the man behind this towering reputation. My niece was able to help by hacking into his home computer to discover that there are clear human characteristics. For example, he enjoys Sondheim musicals, jazz, food and wine. He loves collecting, though the maps given away by car hire firms is different. Having earned extra income as professor-at-large in Tromso University, Norway he bought a sailing boat on Cayuga Lake to which he gave the name Prof @ Large. His perfectionist nature extends to investment of considerable time in every aspect of his boat's anatomy.
It is clear that there are many demands on Fred Schneider's time and his department back at Cornell misses him. Indeed, they have afforded him God like status; God is everywhere while Fred is everywhere except Cornell University. They are, nevertheless, delighted by the honour he receives today. It is to be hoped that this honorary degree further enhances the working relationship between our universities.

Mr Chancellor, for his outstanding academic contribution to the field of computer science and recognition of his international status as a guardian of the silicon foundations of our world I ask you to confer on Fred Barry Schneider the degree of Doctor of Science, *honoris causa.*