Welcome

It is my great pleasure to welcome you to the School of Computer Science at the University of Lincoln.

Our School offers a broad range of teaching and research expertise in Computer Science, Computing Technologies and Information Systems. Further specialisms are robotics and autonomous systems, computer vision and image engineering, medical applications of technology, social computing, games computing, virtual and augmented reality, machine learning and artificial intelligence, cultural computing and business computing.

The National Student Survey 2016 places us in the top 20 per cent nationally against UK university computing departments for overall student satisfaction. Our School provides an exciting, thriving and expanding environment in which to study and offers a wide range of undergraduate and postgraduate courses. Our taught programmes are accredited by both the British Computer Society (BCS) and the Institution of Analysts and Programmers (IAP), which can prepare graduates for active roles in industry with the skills that employers are seeking.

Our School’s teaching is underpinned by the research expertise of our academic staff encompassing all major areas of Computer Science. The School also has strong links to many industrial collaborators and other universities around the world. In the most recent government audit of research in the UK, nearly two-thirds of our staff’s publications were rated as being of “international quality” or “world-leading” (in the outputs element of the Research Excellence Framework 2014).

At Lincoln, students can also benefit from our modern campus and excellent facilities, including the Isaac Newton Building, a major investment by the University and other partners that is now home to the Schools of Computer Science, Mathematics and Physics, and Engineering.

If you would like to know more about the School of Computer Science, please contact us using the details at the back of this brochure or visit us on an Open Day to experience our School and campus for yourself and to interact with both our staff and students.

We look forward to welcoming you to the University and our School.

Professor Luc Bidaut
Head of the School of Computer Science
World-first Proton CT Images Create a New Vision for Cancer Treatment

An international team of scientists has produced the world’s first computerised tomography (CT) images of biological tissue using protons – a momentous step towards improving the quality and feasibility of Proton Beam Therapy for cancer sufferers around the world. This major breakthrough was achieved by the international PRaVDA consortium, led by Distinguished Professor of Image Engineering Nigel Allinson MBE from the School of Computer Science at the University of Lincoln. His team has been working with the Proton Beam Therapy facility at the iThemba LABS in South Africa, using the South African National Cyclotron – a type of high-energy particle accelerator – and they are the first in the world to have produced clinical-quality Proton CT imagery of a biological sample.

The groundbreaking work means that three-dimensional images of a patient’s internal anatomy can now be created using protons rather than X-rays, which will make Proton Beam Therapy a more viable option for millions of cancer patients. Proton Beam Therapy is an advanced form of radiotherapy that uses high-energy particles such as protons to destroy a tumour without damaging surrounding healthy tissue. In contrast, X-rays cause much more damage to healthy tissue in front of the tumour and no damage at all to healthy tissue lying behind, which greatly reduces the side effects of radiation therapy.

“Proton Beam Therapy is likely to become the preferred radiotherapy method for most childhood cancers, as the unwanted exposure to radiation of healthy tissue is much reduced, and so therefore is the risk of side effects and second cancers later in life. Having the ability to administer a high treatment dose in a small region is the main underlying advantage of Proton Therapy. However, accurate planning is absolutely essential to ensure that the dose does not miss the target tumour.”

The PRaVDA consortium, funded by a £1.8 million translation grant from the Welcome Trust and led by the University of Lincoln, consists of five UK universities, four UK NHS Trusts and Foundation Trusts, the University of Cape Town and iThemba LABS in South Africa, and the Karolinska University Hospital in Sweden.

Researchers within the School of Computer Science are part of a pioneering robotics project which aims to develop robots to help elderly people stay independent and active for longer.

The ENRICHME (ENabling Robot and assisted living environment for Independent Care and Health Monitoring of the Elderly) project is an international collaboration involving the University of Lincoln. The research will develop and test the ability of robots to support an ageing population and will see service robots integrated with “smart home” technology in order to provide round-the-clock feedback to elderly users, carers and health professionals. Tasks the robots will be designed to help with include giving reminders to take medication, locating lost objects around the home and enabling video chats with family and friends.

Dr Nicola Bellocco is Reader in Computer Science at the University of Lincoln and Principal Investigator for the ENRICHME project. He said: “The system we are developing builds on recent advances in mobile service robotics and ambient assisted living to help people improve health and wellbeing. It will be of particular benefit to those people who have mild cognitive impairments, for example older people who are still physically healthy but may have the early symptoms of dementia.”

Leading Experts Boost Research and Teaching at Lincoln

The School of Computer Science recently welcomed four new professors. Professors Luc Bidaut (newly appointed Head of School) Gerhard Neumann, Antonella De Angeli and Stefanos Kollias bring a wealth of distinct experience and expertise to the School.

Professor Bidaut offers his international experience in biomedical/translational imaging. His research interests focus on expanding the application and impact of imaging from various sources and of different types of technology, to exploring technological or societal challenges especially, but not exclusively, in biomedical domains. Professor Bidaut further aims to develop the education and training of students within the School through research and industry-informed, hands-on approaches, so that students can gain a deeper understanding of the complex techniques and environments that may await them after graduation.

Professor Neumann’s research focuses on the development of new machine learning algorithms for imitation learning, reinforcement learning, predictive modeling and multi-agent learning, all of which can be directly applied to complex robotics scenarios. Professor Neumann will teach on machine learning and artificial intelligence-related topics and aims to establish new teaching materials on robotics.

Professor De Angeli’s research investigates cognitive, social and cultural aspects of information technologies with an emphasis on the application of this knowledge to interaction design for social innovation. Past research projects have involved students, the general public, associations, public authorities and researchers in joint effort to use technology to create a more democratic environment.

Professor Kollias’s research interests include machine learning, intelligent systems and neural networks, data science, multimedia and big data analysis, affective computing, semantic metadata interoperability, digital libraries and the internet of things. He has been involved in more than 100 European research and development (F&D) projects and is currently supervising three students with projects in the areas of emotion and sentiment analysis, involving visual data, cartoons and tweets.
Student programmes have developed an addictive mobile game, which was released across both Apple and Android platforms.

Boxik is inspired by classic handheld games such as Tetris. The simple but engaging gameplay challenges players to spin a multi-coloured cube to catch incoming objects of the corresponding hue—a task that requires surprisingly demanding mental and manual dexterity.

Boxik was designed and developed by Ryan Burton, Adam Walker and Neville King, who were second-year undergraduate students in the School of Computer Science. The three teamed up at the University’s on-campus AppFest coding jam, where they won a competition set by the University to propose a viable mobile application. The enterprise undergraduates worked on the game alongside their studies and launched their own company—Firefrost Games—and accompanying website to bring their app to market. The game also won a special achievement award from Rockstar Games—the company behind major game franchises such as Grand Theft Auto who have an office in Lincoln.

Student Adam Walker said: “It has been great to work on this project together and to see it through the whole production process, from conception and design, to programming and launching to market.”

‘Virtual Blacksmith’ Takes Pupils Back in Time and Allows Them to ‘Work’ Iron

Many students within the School took part in the project, which won £31,000 from the Heritage Lottery Fund in 2014. The final phase of the project was developed by four undergraduate students using virtual reality technology such as the HTC Vive headset.

Dr John Murray, one of the project’s leads said: “The technology teaches schoolchildren how to perform blacksmith tasks, giving them tips and allowing them to ‘work’ the material. The system then 3D-prints their artefact as a memento of their crafting work. It is hoped that this will preserve the heritage for future generations. The long-term aim is to apply this technology to simulate further heritage crafts, such as pottery or sculpting.”

Boxik – an Addictive Mobile Game from a Trio of Talented Students

Boxik is an evolution of the ancient craft of blacksmithing. The project has been led by the School of Computer Science, and aims to integrate the use of virtual reality technology into the learning experience of primary school children.

The project is funded by the Heritage Lottery Fund and is led by Dr John Murray, a lecturer in the School of Computer Science. It involves collaboration with the Museum of Lincoln and the University’s Heritage Craft Simulation team. The aim is to provide a 21st Century take on blacksmithing by using a virtual reality representation of the Blacksmiths’ Hall, a Grade II listed building.

Two students have risen to the challenge of creating a virtual reality experience of one of the University’s newest facilities, the Isaac Newton Building, which is home to the Schools of Computer Science, Engineering and Mathematics and Physics.

Third-year students, Liam Wilson and Andrew Cardwell modelled the building in 3D based on a set of architectural drawings. As part of the process, the students also added textures to the 3D models they created and imported them into a game engine called Unity, which enables users to utilise the latest virtual reality headsets to ‘walk around’ and move within the virtual building.

Andrew said of the project: “The experience of working on this has been a highlight of my time at the University. It has been a challenge but it has given me industry experience, the opportunity to work with a real client and is something that I am proud of.”

Dr John Murray was commissioned to lead the project through the School’s Undergraduate Research Opportunities Scheme (URORS). Dr Murray said: “We were asked to build a virtual reality experience of the Isaac Newton Building to act as a showcase for the facility. The idea behind it was to give prospective University of Lincoln students the opportunity to experience the building before it was completed.” It is anticipated that there may be opportunities for more students to work on similar projects in the future. “Eventually, I would like to model the whole campus.”

Students use Virtual Reality to Bring Isaac Newton Building to Life

Students use Virtual Reality to Bring Isaac Newton Building to Life

Computer Scientists and students within the School have been working with Chain Bridge Forge in Spalding on a Heritage Craft Simulation project. The aim is to provide a 21st Century take on blacksmithing by using a virtual reality representation of the Blacksmiths’ Hall, a Grade II listed building.

The project is funded by the Heritage Lottery Fund and is led by the School of Computer Science. It involves collaboration with the Museum of Lincoln and the University’s Heritage Craft Simulation team. The aim is to provide a 21st Century take on blacksmithing by using a virtual reality representation of the Blacksmiths’ Hall, a Grade II listed building.

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Computer Scientists To Compete in ‘World Cup’ of Robotics

Computer Scientists from the University of Lincoln have been selected to take part in the ‘World Cup’ of robotics in Japan. The researchers will compete against other elite teams of robotic developers from around the world at RoboCup 2017.

University of Lincoln experts Dr Marc Hanheide, Dr Jaime Pulido Fuentes and Dr Herberto Cuayahuitl are part of an international team alongside experts from Sapienza University of Rome in Italy.

RoboCup 2017 includes five different leagues—each one testing a different area of robotics. The joint Lincoln and Rome team, called SPQRIL (pronounced ‘sparkle’), is one of 12 international groups selected to take part in the RoboCup@Home league, which challenges participants to develop service robots with domestic applications.

Each team in the RoboCup@Home league receives a humanoid ‘Prepper’ robot, and the teams programme their robot with their own software systems so that it can carry out everyday tasks in a home environment. One challenge the teams will face is to programme their robot to successfully serve guests at a cocktail party, with the robots required to autonomously navigate around people, make conversation, and serve food and drinks.

The Lincoln researchers have extensive experience of developing mapping, navigation and human detection capabilities for service robots as part of their innovative STRANDS, ENRICHME and FLOBOT research projects, while scientists at the Sapienza University of Rome specialise in speech recognition.

Student Keeps Lincoln Moving by Creating New Travel Website

Innovative third-year Computer Science student Jacob Ellis successfully created ‘Lincoln Bus’, an all-in-one bus timetable viewer for people travelling around Lincoln. The website was developed to help people check all bus services, routes and up-to-date schedules. Jacob built the site using the programming skills he learned during his Computer Science degree. Lincoln Bus was programmed in PHP for web browsers and Jacob plans to release an Android app. The database was made using SQL and the data is displayed to the user using SQL queries buried in PHP code.

Jacob said: “Bus timetables can often be confusing especially with long journeys or services where departures are at different times on different days of the week. There’s a lot of programming in Computer Science and as such the course has taught me how to teach myself other programming languages.”
The School of Computer Science aims to offer research-driven undergraduate programmes, all closely informed by the needs of industry and future employers. Each one of our programmes is available to study as either a three-year BSc (Hons) or a four-year MComp programme. We offer the following undergraduate degrees:

**BSc (Hons)⁄MComp Computer Science**

The Computer Science programme at Lincoln aims to provide graduates with the skills necessary for a technical career and to succeed in the challenging and exciting modern computing industry.

Students are taught by a variety of academics including lecturers, researchers and visiting specialists. Teaching is informed by world-leading research and the latest developments and industrial technologies. Students are encouraged to work alongside academics on active research projects, benefiting from and contributing to a strong academic community within the School.

Students can develop the experience, skills and knowledge to design and develop a variety of software computing solutions for real-world problems. In the final year, students can choose an area of study that is of specific interest, while completing a substantial individual project.

The degree aims to equip graduates with the mathematical, analytical and problem solving skills to make them well placed for real-world problems. In the final year, students can choose an area of specific personal interest.

For more detail and the most up-to-date information:

**BSc (Hons):** www.lincoln.ac.uk/u/cosc
**MComp:** www.lincoln.ac.uk/u/mcos

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**BSc (Hons)⁄MComp Games Computing**

Games Computing at Lincoln aims to equip graduates with the skills necessary for a technical career. Our programme goes beyond games design by focusing primarily on the skills and attributes required for playing an active role in the games and entertainment industries which include mobile, social media and console game development. Additionally, the course aims to prepare graduates for roles in a broader technological Computer Science environment.

The strong conceptual and methodological grounding in both games development and games design provides distinctive course content. Our students are encouraged to understand how software engineering and creative design complement each other to produce successful computer game products, and to explore the role of games as contemporary cultural artefacts.

The course explores game programming and games design, 3D graphics, virtual and augmented reality (VR/AR), mathematics, games engine programming and other specialist topics such as artificial intelligence and social gaming. As well as completing a games project in the third year, students can choose from a variety of optional specialist modules. Our four-year MComp programme further provides the opportunity to study a range of modules at Master's level and to complete a substantive project in an area of specific personal interest.

We aim to equip graduates to work across not only the whole games development field as tool programmers, artificial intelligence programmers, level designers, mission scripters and games testers as well as roles in the wider IT industry.

Lincoln Games Computing graduates have gone on to work for industry giants and niche companies in the sector. These include Electronic Arts (EA Games), Criterion Games, Rockstar, Sumo Digital, BAE Systems and Team 17.

**MComp**

The University offers an integrated Master’s programme (MComp). The aim of the MComp is to facilitate progression for further research at PhD level and enable students to gain the skills required to stand out in a competitive jobs market. MComp students follow the same modules as those on the BSc, but they undertake an additional research-intensive year in year four. The MComp provides students with the opportunity to study a range of modules at Master’s level and to complete a substantive project in an area of specific personal interest.

**Academia**

All taught undergraduate programmes are accredited by the British Computer Society and the University is affiliated with the Institution of Analysts and Programmers. Lincoln’s School of Computer Science is a member of the British Interactive Media Association and TIGA, the UK games industry association.
Postgraduate Study

Postgraduate students in the School of Computer Science join an academic community that is passionate about using technology to solve real problems. Students have the opportunity to learn from world-leading specialists who are involved in cutting-edge research. Key areas of expertise include robotics and autonomous systems, computer vision and image engineering, medical applications of imaging and technology, social computing, games computing, virtual and augmented reality (VR/AR), human-computer interaction (HCI), machine learning (ML/DL) and artificial intelligence (AI), cultural computing and business computing.

MSc Computer Science

This programme is designed to equip students with the advanced knowledge and skills vital to developing the innovative solutions required by today’s rapidly advancing computing industry. Developments in artificial intelligence, computer vision, robotics, mobile technology and games applications have all become a normal part of society’s interaction with computing devices. Working alongside our staff, students have the opportunity to develop their critical understanding and gain practical experience in innovative areas such as computer vision and surveillance and robotics and mobile computing. This can provide the skills and experience needed to develop novel solutions to current and future challenges. Example modules for study include Advanced Artificial Intelligence, Advanced Programming, Computer Vision and Interactive Design. This programme aims to develop the knowledge and specialist skills necessary to progress in the computing and technology industries and also provides students with the opportunity to continue to research at doctoral level.

MSc Computer Science by Research

This programme gives students the opportunity to develop their expertise in a particular area of computer science. They can consolidate their skills in preparation for positions in research development or technology management. The flexible nature of this Master’s gives students the chance to undertake research in an area of interest to them or relevant to their current employment. Examples of recent projects include bio-inspired neural networks to prevent collisions between cars and pedestrians. The study and development of research contexts and processes can enable our students to consolidate their skills and secure positions in research development and the management of technology, or progress into more advanced PhD studies.

MPhil/PhD Computer Science

Postgraduate study and research in the School of Computer Science offers the opportunity to work on exciting projects within a supportive community.

Research being undertaken in the School includes advancements in imaging technology for the detection and treatment of diseases such as cancer, the design of mobile and social computing platforms for health and wellbeing and enhancing our understanding of how long-term relationships can be developed between humans and robots. Research students can benefit from a comprehensive programme of research development designed to cultivate your research skills and methodologies. Students have the opportunity to work alongside academics whose research is internationally recognised and they can access the latest industry-standard equipment and software to support their investigations.

Postgraduate research can prepare students for a career in either academia or corporate research. Graduates may also progress to roles in the broader computing industry.

For more detail and up-to-date information:
www.lincoln.ac.uk/socs/postgraduate

Postgraduate Loans

You can apply for a loan of up to £10,280 as a contribution towards your course and living costs. This will be paid into your bank account in three instalments during the academic year, if you are studying on a one year full-time course. For more information about Postgraduate Loans and how to apply, visit www.gov.uk/postgraduate-loan

The UK Government are due to introduce new doctoral loans of up to £25,000 for PhDs and equivalent postgraduate research programmes from 2018. Please see our website for the most up-to-date information.

For more detail and up-to-date information:
www.lincoln.ac.uk/postgraduateloans

On my course I have had my first experience of writing an academic paper for publication. Working with state-of-the-art technologies on cutting-edge research, is exciting as there are no predefined answers. I am most looking forward to discovering the results of my research and to contributing to future publications and hopefully to my field. After my MSc I intend to apply for a PhD position within the area of machine learning.

Ashley Williamson
MSc Computer Science by Research student

I am delighted to be able to combine my interests in bio-robotics, both through research and teaching. My research uses robots as a tool to study intract navigation and abstract lessons learned for application in applied robotics. On the Autonomous Mobile Robotics module I introduce students to this fascinating area using recent developments from the field, supported by hands-on robotic laboratories.

Dr Michael Mangan
Senior Lecturer

Above: One of the School’s specialist areas is robotics and how to make them interact and behave as swarms.
Specialist Resources

School facilities that can be used for research and study include computing laboratories with cutting-edge hardware. Our equipment features parallel computing and virtual reality capabilities, and works from a choice of operating systems such as Linux, Windows, and Apple OSX. Our machines are custom-built and designed to work with accompanying devices that include virtual reality headsets, mobile phones, motion capture systems, robotics, micro controllers, gaming devices, and other modern technology.

Design, development and experimentation software is available to work with these devices and on stand-alone projects. This includes Visual Studio, Unity3D, MATLAB, R, Adobe Creative Suite, GitHub, Robot Operating Simulator, and Android Studio, as well as more common programs such as Microsoft Office and a variety of browsers. In addition, the School can also provide other software that may be required for research or further student work.

These facilities are professionally supported by a team of School technicians, some with industry experience they will readily share with our students.

Isaac Newton Building

Work has recently been completed on the latest addition to the Brayford Pool Campus – the Isaac Newton Building, a major investment from the University and other partners to house the Schools of Computer Science, Mathematics and Physics and Engineering. The Isaac Newton Building was named after the great mathematician and physicist, who was born and lived at Woolsthorpe Manor, near Grantham in Lincolnshire. The state-of-the-art building includes offices, laboratories and workshops, teaching and learning spaces, a social atrium space and a 500-seat lecture theatre, as well as a catering facility.

Great Central Warehouse Library

The University of Lincoln’s award-winning Great Central Warehouse Library is open 24/7 for the majority of the academic year. This facility houses an extensive range of electronic resources including more than 260,000 books and 2,100 ebooks, 44,000 print and electronic journals, an online catalogue, specialist collections, and audio-visual archives. Expert staff can help you navigate resources and can deliver training in software programs, statistics and referencing.

The University bookshop, also based in the Library, offers discounts to students.

Excellent Facilities

Outside of your studies, you can grab a bite to eat and catch up with friends in the cafés and bars located on campus, work out in the Sports Centre, catch a show at the Lincoln Performing Arts Centre or enjoy a night out at The Engine Shed, a Students’ Union-run venue.

For more information about our campus and facilities:
www.lincoln.ac.uk/campuslife/ourcampus

*Please visit estates.lincoln.ac.uk/news/awards for further details.
Work Placements

Undergraduate students have the opportunity to take an optional work placement between their second and third years, enabling them to gain valuable experience and a competitive edge in the jobs market when they graduate. Placements are an ideal opportunity for students to gain an insight into the industry sector they would like to work in, alongside a valuable professional experience and can enable students to apply their learning in practice.

While we encourage students to look for their own placement, our academic staff can provide support and relevant advice whenever necessary. Finding a work placement is very competitive. To further assist with this process, the School currently runs drop-in sessions to enable second-year students to ask questions about placements and also to improve CV writing and application skills. Students are responsible for travel, accommodation and living costs while on placement.

Through such placements, some of our students have worked with companies such as General Electric, Intel, JPMorgan Chase, Bloomberg, Mars, Bank of England, Caterpillar and Experian. Students can also choose to study abroad for part of their curriculum, and some of our students are currently working in Belgium, Barcelona and Hong Kong.

"I worked as a Business Systems Analyst for Caterpillar for a year. During my placement, I was involved in a range of projects and the level of my involvement increased as the placement progressed. I was assigned a buddy as well as a supervisor and I had the support of my placement supervisor at the University. I felt like a member of the team. "My placement challenged me but it was very fulfilling, enabling me to put some of the theory I was taught into practice and to gain new skills. I now feel better equipped for my future career."

Luke Thompson
BSc (Hons) Computer Information Systems student

Many University of Lincoln graduates go on to successful careers around the world. Ninety-five per cent of our most recent graduates were in work or further study six months after finishing their course, with almost three-quarters in graduate-level roles according to the latest Destinations of Leavers from Higher Education Survey.

Many use the skills they have developed at the University to go into a broad range of careers in today’s technology-led world, while other graduates continue their studies at postgraduate level. A University of Lincoln degree in Computer Science or Games Computing can open up a range of opportunities as most businesses increasingly rely on computers and software for many of their operations.

Regardless of our students’ individual goals, our team of employment professionals can help them to develop the knowledge, skills and confidence to get the best start in their chosen career.

Computer Science

This degree aims to equip graduates with the mathematical, analytical and problem-solving skills that make them well placed for computer and IT-related roles across a range of sectors. Lincoln graduates have gone on to work for IT Logistics, the NHS, Open GI, Boots and Anglian Water. Some of our graduates choose to undertake further study towards a PhD-level qualification.

Our graduates may also pursue other roles in research and development (R&D), consultancy, or in IT services within large organisations such as retail, finance, healthcare, telecommunications, media and agriculture, as well as in public and third sectors.

Games Computing

The global video games industry is worth more than $99.6 billion annually. In terms of sales, it has already overtaken the film industry. New releases of games and consoles are no longer just product launches but international news events. Our Games Computing graduates can work across the games development field as tools programmers, artificial intelligence programmers, level designers, mission scripters, games testers and many other roles in the wider IT industry. Lincoln graduates have gone on to work for both computer games industry giants and niche companies in the sector. These include Electronic Arts (EA Games), Criterion Games, Rockstar (with offices located in Lincoln, San Diego, Toronto and London), Sumo Digital and Team 17.

Careers and Employability Guidance

The School has a dedicated Careers & Employability Adviser, who runs a drop-in clinic and provides personal guidance appointments, including advice and support on developing your CV, applying for jobs and obtaining paid and voluntary work experience during your studies. Additionally, students have the opportunity to complete the Lincoln Award, which enables you to develop transferable skills in addition to those learnt on your course and to showcase your achievements to prospective employers.

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For more detail and up-to-date information: www.uolcareers.co.uk
Professor Antonella De Angeli
Professor of Human-Computer Interaction
Professor Antonella De Angeli recently joined the University as Professor of Human-Computer Interaction. She also holds the role of Associate Professor in Human-Computer Interaction at the University of Trento, Italy.

Professor De Angeli's extensive career has included teaching and research positions at the universities of Trento, Manchester and Trieste, as well as NCR's Advanced Technology and Research Group, Oregon Graduate Institute of Science and Technology, Laboratorio(lor) di ricerca en informatique et ses applications (LORIA) and Istituto per la Ricerca Scientifica e Tecnologica (IRST).

Professor De Angeli's research investigates cognitive, social and cultural aspects of information technologies with an emphasis on the application of this knowledge to interaction design for social innovation. Professor De Angeli aims to engage students in her research on Human-Computer Interaction.

She says: “I pursue a democratic vision of design, development and evaluation of interactive technologies, grounded in the participatory engagement of diverse stakeholders (students, citizens, associations, public authorities and researchers) aimed at satisfying social and societal needs.”

Previous research which demonstrates Professor De Angeli’s exploration of design includes Music Room, a creative and intimate space that enables couples to compose classical music via their movement; TwitterRadio a retro-style wooden radio transforming tweets into music based on their emotionality and Beatfield, a musical game with no rules.

Dr Paul Baxter
Senior Lecturer in Computer Science
Autonomous Systems

Dr Baxter is a new member of the School of Computer Science, and was previously at the University of Plymouth where he worked as a Research Fellow focusing on human-robot interaction in education and healthcare settings, primarily for children.

Dr Baxter has applied robots to helping children with their learning, ASD therapy and diet management for those with diabetes. He uses techniques from artificial intelligence and cognitive science to make the robot’s behaviour more adaptive and socially appropriate and has worked with children to evaluate his research in schools, hospitals and clinics.

He says: “My research interests include cognitive robotics, social robots and human-robot interaction. Essentially, in order to make robots more useful to people, they need to be social and take into account the way people think about things. In order to do this, we must understand people better and make robots both autonomous and adaptive.”

In Lincoln, he plans to extend his research in this area – which he labels Cognitive Social Robotics – in which robots will become useful to us by acquiring both intelligent (cognitive) and social behaviour.

Dr Baxter is keen to get students involved in his research. He says: “There will be the opportunity for students to make a positive contribution to aspects of my research – as well as having a robotics project that they can show off to potential employers.”

One such project involved working with a summer placement student to add basic socially-appropriate reactive behaviours to a small humanoid robot.

Meet Our Alumni

Jamie Lord
MComp Computer Science

“I currently work as a mobile applications developer in Nottingham on both native Android and iOS projects.

“While studying at the University of Lincoln, I enjoyed the freedom to work on personal projects using the hardware and software available. In addition, learning new skills and expanding my knowledge and experience was enjoyable and prepared me for employment.

“During my degree, I completed two UROS (Undergraduate Research Opportunities Scheme) projects for the School. These enabled me to use the skills I had learned on my degree to produce new internal management systems for the School. These systems are still used by the University which is enormously satisfying.

“In my third year, I worked for the School of Computer Science as a demonstrator on the Mobile Computing module. This was a fantastic learning experience as I was able to witness how a problem can be solved in a variety of ways. The University of Lincoln has shaped my future and I will always be grateful.”

Sitara Shefta
BSc (Hons) Games Computing

“I am a Producer at Sumo Digital and I have worked on games such as LittleBigPlanet and Need for Speed: Most Wanted. I am responsible for ensuring my team delivers a high-quality game on time and on budget. I help the team organise, prioritise and schedule their work in order to make a great game and my role can be very varied.

“My degree provided me with a good foundation in programming, design, 3D art and animation, and how all of these elements combined make a game. This knowledge is vital to my current role as I understand all the processes my team uses and relies upon.

“I particularly enjoyed the design modules on the degree, which involved pitching an original concept for a game, presenting this on paper and then working on a prototype. This allowed me to develop my skills, but it was also akin to what it is actually like developing games in the industry.”

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Sitara Shefta
BSc (Hons) Games Computing

“I am a Producer at Sumo Digital and I have worked on games such as LittleBigPlanet and Need for Speed: Most Wanted. I am responsible for ensuring my team delivers a high-quality game on time and on budget. I help the team organise, prioritise and schedule their work in order to make a great game and my role can be very varied.

“My degree provided me with a good foundation in programming, design, 3D art and animation, and how all of these elements combined make a game. This knowledge is vital to my current role as I understand all the processes my team uses and relies upon.

“I particularly enjoyed the design modules on the degree, which involved pitching an original concept for a game, presenting this on paper and then working on a prototype. This allowed me to develop my skills, but it was also akin to what it is actually like developing games in the industry.”
There are many ways to engage with the University of Lincoln and the School of Computer Science. Whether you want to visit us and take a look around, find out more online or join our social media community, we are here to help. Call us on +44 (0)1522 886644, email enquiries@lincoln.ac.uk or read on to find out ways to get in touch.

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Postgraduate Visits and Masterclasses
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The course listings on our website provide detailed information including a full list of core and optional modules, details on fees, and information on any additional costs that you might incur on a particular degree, as well as accommodation costs. Information about the way you will be assessed on your course, where you will study, the staff involved in your teaching, entry requirements and application details can also be found on our website.

For full admissions terms and conditions, please visit: www.lincoln.ac.uk/terms
Open Days

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