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Acoustic Waves and Allied Technologies

The Brunel Innovation Centre (BIC) focuses on acoustic wave and allied technologies covering a range of materials, sensors, electronics and software systems. The team is well known for the development of ultrasound wave theory, experimental methods, and modelling techniques.

The motivation is to solve problems in industrial inspection and monitoring by conducting thorough scientific research. BIC covers a whole range of activity from fundamental scientific studies through to the transfer of technology to industry and has an outstanding international reputation.

Research areas

- Automation and robotics of inspection systems
- Electronics
- Image processing
- Sensors (piezoelectric, electromagnetic)
- Signal processing

Applicable to industries including:

- Aerospace and aeronautics
- Infrastructure (roads, bridges)
- Oil and gas
- Power generation (fossil, nuclear, renewables – wind turbines, tidal generators, wave systems)
- Surface transport (rail, ships)

Current research

Professor Tat-Hean Gan, Director

Tat-Hean Gan has over a decade of experience in Non-Destructive Testing (NDT), Structural Health Monitoring (SHM) and Condition Monitoring of rotating machineries in various industries.

Enquiries

bic@brunel.ac.uk
+44 (0)1895 266897
Advanced Manufacturing and Enterprise Engineering

The Advanced Manufacturing and Enterprise Engineering (AMEE) research group specialises in advanced manufacturing technology, enterprise engineering and engineering management. Facilities include the Advanced Manufacturing Technology Laboratory, the Enterprise Engineering and Systems Laboratory and the CAD/CAM Laboratory. Current research interests are focused on development of 5-axis ultraprecision micro milling machines, micro manufacturing, nano/micro cutting, 3D surface functionality and characterization, sustainable manufacturing and systems, digital manufacturing and enterprise technologies, RFID enabled manufacturing systems, supply chains management, innovation and technology management, CAD/CAM/CAE, manufacturing metrology, condition monitoring, services engineering, global manufacturing and systems, enterprise modelling and simulation, and e-manufacturing.

Research areas

- Design of ultraprecision machines
- Sustainable manufacturing and systems
- Condition monitoring & control
- Digital enterprise technology
- e-Manufacturing
- Enterprise engineering
- Managing technology innovation
- Micro/nano manufacturing
- Nano positioning and manipulation
- Nano/micro metrology
- Supply chains management
- Systems modelling and simulation

Current projects

Nano/micro machining techniques and the ultraprecision micro machines developed at AMEE have been utilized to machine micro and miniature components and products with features at both nanometric and micro levels on a variety of engineering materials.

Enquiries

- www.brunel.ac.uk/sed/research
- sed-research@brunel.ac.uk

Jurriath (Angela) Azmathi Mumith

"Being a PhD student in Engineering and Design at Brunel gives you a lot of opportunities. We are bombarded with courses and training opportunities to help us to carry out our research from general transferable skills to training in specific software. Another thing I really love is that we get the opportunity to present our research at international forums and conferences and this gives us an opportunity to mingle with the experts in our field and be a part of the international academic community."
Advanced Solidification Technology

The Brunel Centre for Advanced Solidification Technology (BCAST) provides novel solutions for a sustainable metals industry, conducting research to generate world-class knowledge in solidification science. BCAST aims to be an international leader in liquid metal engineering to underpin and strengthen solidification research, strategic technology developments and user-led industrial applications.

The Centre is the leading partner in multi-million EPSRC LiME (liquid metal engineering) and LCV (low-carbon vehicle) programmes and in a number of UK and European research projects. BCAST welcomes collaboration with academics or industrial companies, and is always interested in recruiting PhD students.

Research areas

- Nucleation–based solidification research including the structure of liquid metal, mechanisms of heterogeneous nucleation and the generic approach for enhancing and controlling nucleation through both physical and chemical methods
- Innovative generic technologies for nucleation control including techniques for liquid metal treatment, techniques for enhancing nucleation on both endogenous and exogenous solid particles through both physical and chemical methods, and applications of developed techniques for nucleation control to the existing shape casting and continuous casting processes
- Proprietary applied research with individual industrial partners to exploit fundamental research and generic technological development to support the metal casting industry in implementing innovative processing technologies and new products

Current projects

Projects cover a wide selection of topics from intensive shearing and direct chill (DC) casting to recycling and Molecular Dynamic Simulations of interfacial monolayers.

Enquiries

✉ bcast@brunel.ac.uk
📞 +44 (0)1895 266413

Utsavi Joshi

I am investigating novel methods to improve the grain structure of magnesium alloys.
Tanyel Oktar

As part of my research, I am familiarizing myself with the issues related to deafness, the history of deaf education, deaf marriage and occupations of deaf people in England, the development of British Sign Language and its link to the British Deaf community. I aim to reflect upon this 'deaf experience' as a means to understand the issues affecting deaf people living in England today as well as a point of reference and comparison to the lives of deaf people in Cyprus and possibly Turkey. After my PhD, I would like to continue to do anthropological research around the world on issues directly related to deafness or other broader anthropological phenomena. While my passion to contribute to anthropological literature and theory is strong, I also do not want to ‘detach’ myself from the practice of working and interacting with people, and thus will be in search of career opportunities that allow this delicate balance.

Anthropology

Brunel has a distinctive profile in British anthropology, pioneering research fields as well as making significant contributions to mainstream theory. With expertise covering south Asia, Melanesia, south-east Asia, central and South America, and southern Africa, Brunel anthropologists have also carried out influential ethnographic research in Britain and Europe as well as ground-breaking research in medical anthropology and the anthropology of childhood. Our PhD students benefit from this rich research expertise and contribute their own findings. Students also benefit from a multidisciplinary Master Class programme aimed at offering students access to a range of theories, methods and skills in the Social Sciences.

Our current research spans the globe and engages with a range of theoretically innovative questions and contemporary topics such as political violence, nationalism, the politics of development, post-colonial studies, disability, biography and emotion, and global health. Our staff and students are members of the research centres listed below.

Research areas and centres

- Centre for Anthropological Research on Childhood, Youth and Education (CARCYE)
- Centre for Research in International Medical Anthropology (CRIMA)
- Histories and Concepts of Anthropological Knowledge (HCAK)
- Performance, Politics, and Violence (PPV)

Current projects

Will Rollason’s research on Urban Development, Youth and the Future in Kigali, Rwanda, suggests that youth development in the motorcycle taxi sector in Kigali is mainly driven by informal economic arrangements, specifically between young men, many of them migrants without advanced education or promising backgrounds, and local entrepreneurs who invest in the young men’s futures. In the context of Rwanda’s drive to economic formalisation, the success of the motor sector, and the social systems underpinning it, has remained largely unrecognised, and in many cases are threatened by government and other programmes.

Other research includes: Anthropology and Emotion; Education, Childhood and Social Mobility in India; HIV/AIDS in the UK; and Understanding disability through ethnographic biography.

Enquiries

Write directly to an individual member of staff, outlining your research proposal and giving an indication of your qualifications:

✉️ www.brunel.ac.uk/sss/anthropology/staff
Bioengineering

Brunel Institute for Bioengineering (BIB) has developed over the last 30 years into a Specialist Research Centre providing new solutions for healthcare and health delivery. The team of multi-disciplinary engineers, scientists, clinicians and biologists produces innovative, leading edge solutions in practice for health, medicine and surgery. Smart tools for surgery, smart bio-sensing systems, cardiovascular devices modelling, respiratory functions, bio-processing and technology for quality life-long living has produced pragmatic and cost efficient solutions in practice. Many are demonstrated as innovative prototype devices and are followed through to practice by working with industrial partners. The research within BIB is world leading, and the Advanced Bioprocessing Centre in BIB takes small-scale, analytical methods for purifying pharmaceuticals, proteins, cells and other mixtures and turns them into large-scale processes suitable for production.

Staff members are committed to providing excellent training to researchers and professionals. Students will conduct their research at Brunel, and some research can be conducted in practice or with associated companies. BIB is affiliated with clinical partners; international hospitals, national and private, and has a close working relationship with companies on a world-wide basis who also participate in the research. Irrespective of their setting, all new research students will enjoy the embracing and nurturing environment of BIB’s staff and student body, and will feel part of the research team.

Research areas

- Devices – surgical tools, implantable devices and sensing systems
- Modelling and simulation – used to interpret diagnosis data, predict bioprocesses, judge impact of therapies and optimise design of medical devices and tools
- Continuous flow processing – downstream processing, liquid-liquid dynamic extraction technology, separation and purification techniques and associated instrument design/operation, linking upstream and downstream processes, modelling and method development
- Assistive technology – the design of products integrating relevant new technology that focus on the needs of users to improve their quality of life

Enquiries

bibadmin@brunel.ac.uk
+44 (0)1895 266927

You might also like our Bioengineering MRes on page 40.
Jessica Pickles

I am investigating the molecular events triggered by treatment of Syrian hamster embryo cells with genotoxic and non-genotoxic carcinogens. The aim of my project is to validate that morphological changes induced by treatment of these cells can be used as a reliable indicator for predicting the carcinogenicity of substances with potential for clinical applications. By studying these morphologically altered cells we can help explain the relationship between malignant transformation and cell immortalisation.

Current Staff Project

Professor Arturo Sala is Deputy Director of Brunel Institute for Cancer Genetics and Pharmacogenomics. He aims to understand the molecular causes of cancer and develop innovative therapeutic approaches. Professor Sala’s group is particularly interested in studying the role of specific oncogenes and tumour suppressor genes, such as MYC and CLUSTERIN, in cell proliferation and apoptosis in the context of cancer stem cells.
Brunel Business School offers a productive and supportive environment for research. Doctoral students will be supervised while undertaking high level rigorous and original research, and will be invited to participate in the annual PhD Symposium and regular Research Seminars, and engage fully with their designated Research Centre.

Brunel offers an opportunity to undertake the PhD programme in Bahrain through a collaboration with Ahlia University as well as the option of the New Route PhD.

**Research areas and centres**

- **Accounting and Auditing Research Centre** – corporate financial reporting, assurance and corporate governance, impact assessments of government policy on the accounting and auditing needs of SMEs and the effect of deregulation on users of their financial statements
- **Centre for Research into Entrepreneurship, International Business and Innovation in Emerging Markets** – strategy, SMEs and innovation, entrepreneurship and innovation in emerging markets and trade and knowledge exchanges with other countries
- **Centre for Research in Marketing** – corporate marketing, corporate identity, and corporate brand management, international marketing, B-B marketing, CSR/ethical marketing among others
- **Information Systems Evaluation and Integration** – multi-disciplinary research in Information Systems Evaluation, Enterprise Integration and eGovernment
- **Operations and Supply Chain Systems Group** – all aspects of Operations Management and Supply Chain Management and related areas
- **Work and Organisation Research Centre** – HRM, Performance at Work, Social Identity and Organisational Processes

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**Sara Ahmed**

“I received a scholarship from the Ministry of Higher Education of Saudi Arabia to study at Brunel. The supervision is excellent. I am doing my PhD on applicant reactions to selection procedures, investigating selection fairness within Internet-based selection procedures from applicants’ perspectives.

I published my work in the *International Journal of Selection and Assessment* with my supervisors, who are always available to provide excellent guidance and support. I also presented my work at the British Psychological Society Division of Occupational Psychology (BPS-DOP) in 2012.

My ambition is to work as a lecturer. I look forward to collaborating with academics from different disciplines. Brunel has all that I need – a unique environment, multicultural community, high quality teaching, excellent supervision and great location close to Heathrow Airport. Connections to central London are excellent.”

**Mario Burghausen**

“My research developed a theory of corporate heritage stewardship and my study focused on Great Britain’s oldest brewery. I was the recipient of a Brunel Business Scholarship, enabling me to work with my supervisor Professor Balmer on a study relating to the broad corporate marketing domain.”
Civil Engineering

The Sustainable Civil Engineering Research Group (SusCERG) is a multidisciplinary research hub bringing together strengths in engineering and environmental sciences to address real-life problems in a way that advances fundamental scientific knowledge and understanding and improves efficiency in industry and the built environment.

Research areas

- **Innovative Materials**: nanocellulose and engineering bio-composites, nano and graphene and nano aerogel materials and integrated composites, nano and natural insulation materials and systems, timber and reengineered timber products, ultra-functional and long life materials, textile and its composites, geopolymer and advanced cement-based materials, low carbon materials, microwave and micro processed materials, pavement materials, steel and composites

- **Advanced Structures**: structure testing and modelling and health monitoring and protection, earthquake engineering and seismic design, analysis of reinforced concrete components and structures, nonlinear structural mechanics, timber engineering, silo structures, pavement engineering, steel design and construction, connectors and connections, structural fire engineering and multi-scale computing

- **Geo-technical and Water Engineering**: site investigation, characteristics and stability of soils and sediments, coastal and floodplain, seismic impact on soil characteristics, mechanics of dissolution-impacted soils and rocks, surface water and wastewater generation and reuse, flood protection and alleviation, water supply and distribution network modelling and drainage collection systems

- **Procurement and Sustainable Construction**: sustainable procurement, risk and contract, health and safety, planning and control, change and claims, delay and disruption analysis and lean construction; lightweight construction, modern method construction (MMC) innovative construction design and codes and standards

- **Resources Efficiency and Sustainability**: waste management, waste treatment of huge mass structural materials, reuse and recycling of household, commercial, refurbishment and demolition wastes, usage of industry by-products such as PFA and GGBS and used tyres, performance in use and LCA

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Current projects

SusCERG has a number of research projects on materials and composites from nano and graphene to micro and macro scales, innovative design, processing, fire engineering and product performance.

On-going EU and UK government projects include: Highly efficient production of aerogel insulation materials and their integrated composites and systems (ICECLAY); Nanotechnology enhanced extruded fibre reinforced foam cement based environmentally friendly sandwich material for building applications (FIBCEM); Utilisation of recovered wood and rubber for alternative composite products (WOODRUB); and Local cultivated hemp and flax as a resource for bio-based building materials (Grow2Build).
Computer Science

The Computer Science department is home to a vibrant and talented community of students, researchers and academics who provide deep, practical insight into the development and use of computational techniques and technology for modern and complex environments. Computer Science students on this excellent PhD research programme address complex and challenging issues, present work at international conferences and publish in high quality journals. You will benefit from world-class supervision and dedicated facilities – every research student has access to office space and a computer. You can study for a traditional PhD full-time or part-time, or undertake the New Route PhD. More information on the New Route PhD is available on page 28.

Research areas

- Centre for Information and Knowledge Management (CIKM)
- Centre for Information Systems Research (CISR)
- Centre for Intelligent Data Analysis (CIDA)
- People and Interactivity Research Centre (PANDI)
- Centre for Systems and Synthetic Biology (CSSB)

Current projects

Professor Hierons is developing methods that support automated software testing, with a focus on using multiple independent testers when testing distributed systems. The main motivation is that if we can use independent testers then we avoid the delays introduced by testers exchanging coordination messages; this makes testing cheaper and is sometimes necessary when there are timing constraints. His other research interests include the automated analysis of software, motivated by the desire to reveal faults at an early stage.

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Mrs Mohsina Ferdous

The primary objective of ‘Predicting chromatin status using differential expression profiles’ is to apply intelligent data analysis and bioinformatics methods to determine gene transcription signatures that are predictive of the underlying chromatin structure and to use these signatures in place of, or in combination with, Chromatin Immunoprecipitation with Next-generation sequencing (ChIP:Seq).
Creative Writing

The Creative Writing PhD offers the opportunity to complete a substantial work in an exciting research environment in London with the benefit of the experienced supervision of tutors, all of whom are professional writers. It is an ideal progression from a Master’s degree, or for professional writers who wish to gain a doctorate in creative writing, or for those wishing to teach creative writing at university level.

Creative Writing research at Brunel can embrace creative practise, critical reflection and research into the educational and social impact of this discipline. Graduates are offered expert support in professional preparation for a literary career and are expected to establish a strong publication record. You will submit a thesis divided into creative and critical components that relate to each other – the essay can be either a commentary on process and practice, or an investigation into other fields of creative literature and critical/theoretical writing.

Research areas

- A wide range of literary ambition, from experimental fiction to genre writing
- Practice-based research, specifically proposals for novels, poetry, drama and imaginative non-fiction that demonstrate originality, a commitment to generic advance or reinvention and a high standard of artistic accomplishment
- The role of Creative Writing in education and in communities outside the university sector such as teaching in schools, literature as public art and the cultural industries

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Rohail Ahmad

It was important that I chose a university within commuting distance as I live in West London and only Brunel had exactly the course I wanted: a Master’s on how to write a novel. The course exceeded my expectations. I achieved a Distinction and jointly won the Curtis Brown Prize for my dissertation novella, *The Dancing Girl of Lahore*, which was also long-listed for the Paris Literary Prize.

I continued on to a PhD in Creative Writing. The staff were very encouraging and I received excellent supervision. My PhD novel, *Pure Mafia*, is a contemporary novel about child labour. My novella and novel are currently under consideration by publishers.

In the second year of my PhD I was given the opportunity to teach undergraduates. I have now taught for two years and will continue to do so as a part-time lecturer. I was also given the opportunity to complete a course in higher-education teaching, which led to a qualification of ‘Associate Fellow’ with the Higher Education Academy.

Liesel Schwarz

My PhD is focussed on 19th Century speculative literature and the influence it’s had on popular culture and modern genre writing. The skills I learned at Brunel have opened so many doors for me – I have found my way into the world of teaching writing.
Jea Hoo Na

I chose Brunel because of its excellent reputation for design. I first joined the MA Design Strategy and Innovation programme because I was fascinated by the expanding role of design in both industrial and social contexts. Now I am a PhD student researching corporate-level design policy for innovative manufacturing in the UK under the supervision of Dr Youngok Choi. The academics are passionate about their work so there is no shortage of thought-provoking discussions and enrichment of knowledge. Whilst conducting my research, I had opportunities to be involved in an industry collaboration project with one of the largest global electronics companies, and work as a research assistant. I presented the findings of my research at the International Design Research Conference in Boston, USA, organised by the Design Management Institute (DMI). I am also working as a teaching assistant for MA Design Strategy and Innovation and MA Design and Branding Strategy.

All these opportunities and experiences have greatly enriched my research.

Design

Brunel Design is multidisciplinary, spanning electrical, mechanical, manufacturing and materials engineering, CAD, inclusive and sustainable design and design management. Brunel Design has a well-established record of research excellence, with multidisciplinary, product related design research that is grounded on strong engineering design traditions. The diversity of expertise and research grant portfolio enables the provision of challenging research opportunities and experiences for research students, and the ability to offer consultancy and research and development services to industry.

Research in Design is coordinated by the Brunel Design Research Centre, with thematic streams aligned with current environmental, societal and technological imperatives.

Research areas

- Design and human wellbeing through human centred design and inclusive design including ergonomics
- Design and environmental sustainability including behaviour change, electronic materials, textiles and virtual/VR space
- Design for the creative industries including computer aided design, human modelling & simulation, open design & the digital economy, materials & manufacturing design and design policy and management

Current projects

The Cleaner Electronics Research Group focuses on design and the environment. Projects include research into a framework to support design for sustainable behaviour, an investigation into the role of design standards in sustainable design, and the design of modular daylighting systems for buildings. Collaborative work with industry includes the development of design methods for sustainable design and inclusive design in construction.

Contact us

- www.brunel.ac.uk/contact-admissions
- www.brunel.ac.uk/sed/design/research
Economics and Finance

Brunel’s Economics and Finance Department is one of the ten largest Economics departments in the UK with a distinctive focus on integrating Economics, Finance and Accounting. Our research informs industry, government and economic policy. Brunel offers two research programmes in Economics and Finance: the PhD and the New Route PhD. All of our PhD students benefit from working with key researchers in their chosen area. Students also benefit from a multidisciplinary Master Class programme aimed at offering students access to a range of theories, methods and skills in the Social Sciences. The New Route PhD in Economics and Finance aims to educate graduates to the high academic standards expected from PhD research with an integrated range of skills and knowledge that broaden and deepen subject expertise beyond the bounds of the usual research degree. More information on the New Route PhD is available on page 28.

Our research covers a wide range of areas including financial markets and institutions, macro- and microeconomics, development, financial accounting, corporate governance and econometrics.

Research centres

- Brunel Macroeconomics Research Centre (BMRC)
- Centre for Economic Development and Institutions (CEDI)
- Centre for Empirical Finance (CEF)
- Centre for Accountancy and Corporate Governance (CACG)

Current projects

John Bennett, Professor of Economics, is currently researching informality (economic activity that is not registered with the authorities, eg for tax purposes) in developing and transition economies.

Menelaos Karanasos, Professor of Economics, is currently working on an EU funded research project looking at Macro Risk Assessment and Stabilization Policies with New Early Warning Signals (RASTANEWS).

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Francis Atsu

Most credit risk models could not appropriately measure the probability of extreme default losses due to the assumption that default correlations are only driven by observable firm-specific and macroeconomic factors. Hence, a new research strand emerged where US data sets are mainly used to augment previous models with frailty factor(s). Therefore, my research seeks to explore various multivariate models and dependence structures by developing a regime switch log-normal frailty model using listed firms on the London Stock Exchange - currently the largest by volume and most proactive exchange-traded fund exchange in Europe.

As a Commonwealth scholar, with a passion for development, after completion, my first action is to go back to Ghana and create a risk centre to be hosted by Ghana Institute of Management and Public Administration (centre for training public and private officials) with the core objective of training, research and policy formulation aimed at accelerating economic development and poverty reduction.
Education

Education at Brunel covers a diverse range of education-related disciplines offering excellent research degree programmes to students who benefit from world-class supervision and extensive facilities. Brunel's Education students not only address some of the most current and challenging issues but also publish their results in high quality journals and present at international conferences. You can apply to study on a full time or part time basis for a research-led Master of Philosophy (MPhil), a Doctor of Philosophy (PhD) or on the New Route PhD. More information on the New Route PhD is available on page 28.

Research areas

- **Curriculum Adaptation and Educational Interventions (CAEI)** – effective curriculum provision through specific adaptations and interventions in Mathematics, English, ICT and Science, enhancing the quality of learning through pedagogical approaches, ways of identifying and fulfilling talent of special educational groups such as children with high potential in inner-city areas of social deprivation and the design of effective interventions

- **Education, Identities and Social Inclusion (EISI)** – the impact of identities on teachers’ engagement with professional development, the ways in which the identities of student teachers change over the period of initial teacher education, the formation of ‘cosmopolitan’ identities amongst internationally mobile students and staff, pupils’ understandings of culture and identity and the construction of sexual identities within educational settings

- **Pedagogy and Professional Practice (PPP)** – models of effective practice in relation to science, technology, engineering and mathematics (STEM) education and models of effective professional practice in education

Recent project

In the recently published paper ‘Are we being de-gifted, Miss?’ Primary school gifted and talented co-ordinators’ responses to the Gifted and Talented Education Policy in England are examined in the British Education Research Journal. The paper is based on Brunel's National survey and interviews and it highlights what children and teachers think about teaching higher ability children.

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Electronic and Computer Engineering

Research in Electronic and Computer Engineering covers a wide range of areas which have direct compliance with industry vision and requirements, and are carried out in five research centres in the areas of telecommunications and sustainable energy and systems. The team offers comprehensive high-quality teaching and learning resources and strong research links with industry.

Research areas

- **Centre for Media Communications Research (CMCR)** – image compression, visual media processing, 3D imaging technologies, audio processing and recognition, media search and retrieval, real-time signal processing, networked media systems, media transport and delivery over heterogeneous networks and virtual/augmented reality technologies

- **Wireless Networks and Communications Centre (WNCC)** – wireless communication networks, broadcast communication networks, mobile communication networks, radio over fibre, future Internet and application of networks for the communication of information, media and services within the media, energy and environment, security and defence, manufacturing and medical industries

- **Brunel Institute for Power Systems (BIPS)** – power systems analysis for transmission and distribution networks, novel ICT solutions for smart grids, congestion and condition monitoring in electrical power networks, design and analysis of power electronics for sustainable electrical power systems and analysis of new energy markets

- **Centre for Electronic Systems Research (CESR)** – charge particle dynamics of pharmaceutical aerosols, electrohydrodynamics atomization & spray systems, electrospinning of micro and nano fibres, molecular dynamic simulation of EHD, electrical charge effects of pollen, ECG diagnosis using non-linear dynamics and neuro-fuzzy systems, bio-nanotechnology: lab-on-a-chip systems, NDT using digital radiography, NDT using EMAT sensor systems, blind navigation using GPS and wireless communication technologies, biometric security in wireless communication systems and numerical modelling of optoelectronic devices

- **Centre for Sensors and Instrumentation (CSI)** – detectors, instrumentation and data analysis methods applied to high energy particle physics, space science, medical imaging and remote instrumentation and control. Data processing techniques include grid computing, genetic programming and visualization

Current project

One of Professor Nandi’s current projects is a collaboration between Brunel, Oxford, Bristol and Cambridge universities to study regulation of gene expression during red blood cell developments.

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Basel Abu Jamous

"I work in bioinformatics, an interdisciplinary field in which biologists meet information engineers. As biologists have been generating enormous amounts of raw biological data, information engineers have been increasingly needed to fruitfully analyse datasets. My focus is on designing new specialised computational methods and applying them to biological datasets for new biological discoveries. I regularly interact with biologist and medical collaborators at the Universities of Oxford and Bristol to discuss the progress of the research. I have had the chance to present my work many times at these meetings. I have successfully proposed a new computational method, Bi-CoPaM, and published it, and one of its applications, in two journal papers."
Our research is focused through the early modern studies group, the Brunel Centre for Contemporary Writing (BCCW), and the Brunel Gender and Sexuality Research Centre (BGSRC). Brunel is a leading centre for contemporary literature and theory with one of the UK’s strongest concentrations of researchers. The BGSRC explores gender and sexuality as categories of social understanding and intellectual analysis across historical periods, geographical arenas, and intellectual contexts through research in comparative and postcolonial literatures, medical humanities, and pre-modern sexualities. Characterised by diverse and interdisciplinary critical approaches to major literary periods, geographies, and movements, our research explores marginalised forms and groups. Our ground-breaking work on literature and ageing has had a major influence on UK policy makers and we are especially interested in how literary studies contribute to the analysis of social issues, identities, and the impact of new technologies.

Research areas

- Early modern writing and drama (Marlowe, Shakespeare, Jonson); spatiality and literary geographies; masques, progresses, and civic rituals
- Nineteenth-century literature: religious prejudice, secular anxieties, and narratives of cultural subversion; sensation and fantasy novels; science fiction
- Modernism / Intermodernism / Postmodernism
- Post-1945 avant-garde British fiction; modernist and post-war women’s writing; science fiction and fantasy writing
- Contemporary fiction (British, American); popular fictions, popular culture and consumption
- Postcolonial literature and theory; the politics of cultural translation
- Queer theory and writing; pre-modern sexualities and the body; sexology and medical sexualities; postcolonial queer identities
- Critical theory, literature and philosophy (especially Agamben, Derrida)
- Space, literary geographies, and psycho-geographies
- New histories of the book, authorship, oral and textual transmission, manuscript studies and codicology, editing and editorial theory
- Literature and religious identities (early modern propaganda; early modern Muslims)
- Literatures of the black and Asian diasporas in Britain; British Muslim identities and writing; South Asian women’s writing
- Irish writing, identities, and cyber-identities

Current staff project

Dr Elizabeth Evenden teaches early modern literature and book history. She is researching anti-Catholic and anti-Spanish propaganda in the English and Portuguese book trades. Re-shaping the Black Legend: Conflict, Coalition, and the Press developed from her two monographs on the Protestant printer John Day and the polemicist John Foxe. Recently awarded a prestigious Marie Curie International Fellowship, she is based at Harvard University and at the Biblioteca Nacional in Lisbon.

Contact us

COVID-19

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Environment

The Institute for the Environment (IfE) houses a team of experts and excellent toxicology and ecotoxicology facilities, a range of testing and analysis equipment, and equipment for the chemical analysis of samples. IfE’s research tackles a diverse range of environmental science issues. Research students can work towards an Mphil, PhD or New Route PhD – choosing a research topic is an interactive process between you and IfE, though you will have some idea of the general area that you would like to investigate. More information on the New Route PhD is available on page 28.

Research areas

Dr Chaudhary is involved in the development, optimisation and commercialisation of clean and clean-up technologies for environmental pollution control

Prof Jobling aims to understand how contaminants influence wildlife and human health, and how technological processes might assist in their removal

Prof Kanda is interested in the development and application of high resolution MS and MS/MS analytical techniques for the determination of exposure of humans and wildlife to priority pollutants and hazardous substances

Dr Kershaw aims to interpret environmental change in Earth surface environments in areas associated with active change in the Earth’s crust and to assess modern geohazards

Prof Kortenkamp’s interests include understanding combined effects of environmental pollutants on human health and wildlife and developing strategies for mixtures in chemicals regulation

Prof Leroy is a palynologist interested in reconstructing past climates using lake and marine sediment sequences ranging from the Pliocene to the present

Dr Pickford is interested in the impacts of environmental contaminants on the thyroid system of wildlife and test method development to support environmental risk assessment using amphibians

Dr Routledge is interested in human and wildlife health effects of exposure to biological and chemical contaminants in water

Dr Russell is interested in atmospheric phenomenon on a variety of temporal and spatial scales, including severe storm events in Western Europe

Dr Scrimshaw focuses on the fate and behaviour of chemical contaminants in the environment and during waste water treatment, including evaluation of their environmental impact and measures to control their discharge to the environment

Dr Silva is interested in how steroidal and environmental estrogens (and mixtures) affect breast glandular structure, morphogenesis and carcinogenesis in an effort to improve the understanding of hormonal carcinogenesis using in vitro 3D cultures

Prof Sumpter is interested in the effects of human pharmaceuticals present in rivers, such as beta-blockers, steroids and anti-cancer drugs on fish, with research ranging from molecular level studies to population level effects

Dr Zeka is interested in human health effects of occupational and environmental exposures, specifically air quality. She is interested in exploring health determinants in societies in transition

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- www.brunel.ac.uk/ife

Christopher Green PhD

I chose Brunel’s Institute for the Environment as a result of its high quality scientific research. I am studying for a PhD on the effects of anti-androgenic and oestrogenic chemicals on model fish species, using a broad range of experimental techniques including hydrological modelling, histology, in vitro and in vivo assessment and analytical chemistry. This has greatly benefited from the knowledge and experience of the multidisciplinary team at the Institute as well as its contacts in the wider scientific community. This has resulted in me collaborating with other researchers in Japan and Australia and presenting my work to a wider audience at international conferences.
Research in Film and TV Studies at Brunel is coordinated by the Screen Media Research Centre. Members have established a substantial body of internationally recognized work in film, television and areas of digital media. We specialise in studies of contemporary film, television and related media but also welcome applications with a more historical basis. We can supervise practice-based as well as more traditional, theoretically-focused projects, in areas including but not limited to those listed below.

**Research areas**

- Recent and contemporary British, European, Hong Kong, Hollywood and American independent cinema
- Cult film, television and other media
- British and American television
- Science fiction, horror, comedy, the western, crime films
- Documentary, video practice, practice as research
- Media and press regulation
- Political cinema, activist media
- Gender, sexuality and the body in film
- Celebrity culture
- Marxist and psychoanalytical approaches to screen media
- Cinematic spectacle, narrative
- Avant-garde and experimental cinema
- Ecocriticism and screen media
- Trade unionism in film and TV industries

**Current projects**

Prof Julian Petley is researching and campaigning on shortcomings in British media regulation, having given evidence as a major authority on the subject to the Leveson enquiry into press ethics. Other projects include a new study of celebrity culture by Dr Milly Williamson and an examination of the Hollywood ‘quality’ film by Prof Geoff King.

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**Mark Adams**

My research examines the role of fan-producers in contemporary television, contributing to a reassessment of theories relating to the activities of media audiences.
Games Design

Brunel has a thriving PhD programme devoted to the academic study of games from a range of perspectives. The dedicated Games Lab provides a base from which to work and is great place to play games of all formats old and new and mix with staff and students investigating this exciting new academic topic. Recent guest speakers include Francis Tresham, original inventor of Civilization, and Jervis Johnson, Games Workshop's Senior Game Designer.

We do not teach programming or 3D design, and students do not need to come from a computing or art background. Our staff all have experience at many different levels in the games industry or are pioneers of games studies as an academic discipline. Games at Brunel welcomes anyone with a strong research proposal for full-time or part-time study.

Research areas

- Games and narrative / storytelling / textual analysis
- Games Design and the workings of gameplay
- Gamers’ relationships to virtual worlds and environments
- Practice based research resulting in experimental or avant garde game designs / prototypes
- Studying the gamer and gaming as a media type or subculture

Current projects

Dr Douglas Brown is examining the way suspension of disbelief works in videogames compared with other media using textual analysis and literary theory to help explain how gamers reconcile these complex texts imaginatively, and how breaking the fourth wall in games generally has the opposite effect to doing so in other media.

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Eduardo Lima

I am investigating correlations between videogames’ narrative structures and ancient narrative traditions of Icelandic sagas.
Health Economics

The Health Economics Research Group (HERG) is an internationally recognised centre of excellence in applied health economics. It undertakes high quality, policy-relevant research and contributes to the development of evaluation methodologies. Its research currently focuses on economic evaluation of health technologies, economics of public health, measurement and valuation of outcomes from health interventions, use of economic evaluation in decision making and methods of evaluating the ‘payback’ from research and development in the health sector. Academics in the Group encompass a variety of disciplines including economics, public health, health services research, political science, and information science. Associated researchers at Brunel extend this network to statistics, medical sociology, nursing, psychology, mathematics, information and computer science.

Much of HERG’s work is carried out with or on behalf of medical institutions such as hospitals, medical research units and NHS bodies as well as international organisations. HERG has made major contributions to developing multi-dimensional ways to conceptualise and measure the payback from health research, and these are proving to be areas of growing interest to governments and research funding bodies in various countries.

Research areas

- Development and use of benefit measures for evaluation and policy
- Modelling the cost-effectiveness of health interventions
- Cost-effectiveness alongside a range of experimental and quasi-experimental designs
- Applied economic evaluations
- Resource allocation formulas
- Assessing the ‘payback’ derived from the funding of health and medical research

Current projects

Joanne Lord, Reader in Health Economics, conducts research into the cost-effectiveness of health care technologies. She is the lead economist on a portfolio of applied studies, working alongside clinicians, statisticians and other health service researchers. For example, she is working with Warwick Medical School on a study to identify which people with low back pain are most likely to respond well to different types of therapy.

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Health Studies

The Health Division has a truly multidisciplinary focus with staff members from a wide range of professional, subject and disciplinary backgrounds. Staff research outputs include seminal text books on health promotion and medication management in care of older people. Research centres include the Brunel Institute for Ageing Studies (BIAS), the Centre for Professional Practice (CPPR), Centre for Citizen Participation (CCP), Centre for Research in Rehabilitation (CRR), Centre for Child and Youth Research (CCYR), Centre for Human Geography (CHG) and the Centre for Youth Work Studies (CYWS).

You may apply to work on one of our pre-defined projects or propose a self-chosen project.

Research areas

- Health research
- Health promotion and public health
- Health care law
- Health and social policy
- Community health care nursing
- Health economics
- Occupational health and safety
- Health management and counselling

Current projects

Our researchers are currently involved in collaborative projects with organisations such as the Quality of Life Group of the European Organisation for Research and Treatment of Cancer, Department of Trade and Industry backed Knowledge Transfer Partnerships with North West London Acute Trusts, Haringey Primary Care Trust, the Ethiopian Community Centre and the University of Magdeburg and the International Union of Health Promotion and Education.

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Ingrid Bacon

I entered the world of Brunel University to study Occupational Therapy. After completing my degree, I had the opportunity to work in different countries, where I practiced as a mental health clinician. I obtained two Masters degrees in Psychology and Health Studies.

In April 2011, I applied for a PhD Scholarship at Brunel, which also involved some teaching responsibilities. The financial element of this was a key enabler in being able to pursue my dreams.

I am currently in the second year of my PhD and although it is hard, I am enjoying every minute. I had the opportunity to teach on several different modules and also to mark assignments.

I have received immense support from the module leaders and supervisors. I also had the opportunity to receive training and support through the Graduate Learning and Teaching Programme, which offered an opportunity to develop my teaching skills, and also to reflect on my future career as an academic.
Journalism

The Journalism PhD offers you the chance to complete a substantial work within our Centre for Advanced Journalism Practice, an exciting research environment in London. You will benefit from the experienced supervision of our tutors, all of whom are professional journalists as well as academics.

It is an ideal progression from a Master’s degree, or for professional journalists wishing to gain a doctorate, such as those wishing to teach journalism at university level.

Journalism research at Brunel can embrace the examination of practice – both your own or that of others – and critical reflection and research into the educational and social impact of this discipline. Graduates are offered expert support in professional preparation of their thesis and are expected to establish a strong publication record.

Research areas

We can support a wide range of interdisciplinary studies into journalism, including (and not limited to):

- Reflexive, research-led practice
- Journalism history
- Occupational studies
- Journalism and trauma
- Representation of gender, ethnicity, disability, sexuality
- Journalism genres
- International journalism
- Conflict reporting
- Investigative journalism
- Data journalism and the impact of social media
- Celebrity journalism
- Journalism education and training

Current projects

Sarah Niblock, Professor of Journalism, is currently looking at the effects of reporting child grooming cases on care policy. Other research interests within the team currently include broadcast regulation, visual journalism, psychoanalysis and journalism and much more.

Sawsan Taha, Journalism PhD, is examining reporting of internal conflicts in Middle Eastern countries.

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Law research at Brunel covers a wide range of subjects including human rights, public law, commercial law and international commercial law, criminal law and criminal justice, and private law. It includes doctrinal, theoretical, socio-legal and empirical, comparative and historical research. Research centres and research groups hold regular research seminars, workshops and conferences, as well as providing a forum for PhD students to discuss their work and be involved in research activities related to their thesis. Law at Brunel welcomes applications for a PhD, MPhil or LLM by research.

Research areas

- Arbitration and alternative dispute resolution
- Banking and finance
- Company law and corporate governance
- Comparative law
- Competition law
- Consumer law
- Contract
- Criminal justice
- Criminal law
- Discrimination law
- Environmental law
- European Union law
- Evidence
- Family and child law
- Gender and the law
- Human rights
- Intellectual property
- International economic law
- International trade law
- Internet law
- Islamic Law
- Labour law
- Legal history
- Legal practice
- Legal theory and jurisprudence
- Media law
- Nationality, immigration and asylum
- Privacy and data protection
- Procedure
- Public international law
- Public law
- Religion and the law
- Restitution and unjust enrichment
- Socio-legal studies
- Southern African Development Community
- Taxation
- Terrorism and the law
- Tort
- Trusts and equity

Current projects

Professor Peter Jaffey is working on an article on the legal relationships between a beneficiary under a trust and the trustee and outside parties. The law of trusts governs the holding and management of property and investments by trustees on behalf of other people in many different situations in family, social and commercial contexts and is of enormous practical importance.

Edward

My research considers the law governing foreign direct investment and, in particular, whether it allows states to balance commercial and human rights obligations.

I chose to undertake my PhD at Brunel because of its reputation as a leading research institution. Also, as a Graduate Teaching Assistant, I teach undergraduates which gives me excellent experience for my future career as an academic.

When I complete my PhD, I hope to be able to qualify as a barrister and balance this with a career in academia.

Prejal Shah

I am conducting research in the field of comparative criminal justice on the subject of police interrogation and its impact on suspect’s rights; a comparative study between India and England & Wales.

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Materials Characterisation and Analysis

The Experimental Techniques Centre (ETC) specialises in high level characterisation and analysis of a wide spectrum of materials. It encompasses bioengineering and biosciences, the environment, and an extensive range of engineering. ETC provides an accredited evaluation service to industries and a wealth of collaborative opportunities for external research and development enterprises.

ETC focuses on surface science, thin films, materials and nanoscale investigations. A wide range of techniques are available, including electron microscopy (SEM and TEM), X-ray photoelectron spectroscopy (XPS), atomic force microscopy (AFM) and Fourier-transform infra-red spectroscopy (FTIR). There is an X-ray diffractometer (XRD) for crystal structure studies as well as a Secondary Ion Mass Spectrometer (SIMS) for surface chemistry investigations. There are openings for postgraduate research students in varied areas of investigation, with funded places available in some instances.

Research areas
- Thin films and coatings
- Environmental science
- Archeometallurgy
- Nanoparticles
- Pollution remediation
- Forensic science
- Cell Interactions with metals

Current projects
- D Makelin, laser cutting of fibres
- A Wodylka, materials selection
- Dr N Attard-Montalto, fingerprint chronology
- N Nelson, diamond like carbon and tool wear
- TBA, microplastics in the environment
- TBA, cell surface potential

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- www.brunel.ac.uk/etc
Materials Processing

The Wolfson Centre for Materials Processing focuses on materials science. Established in 1987 by Professor Mike Bevis with the help of a generous grant from the Wolfson Foundation, the Centre has grown to become a distinguished international centre of excellence for materials technology.

The Centre has a wide range of techniques available, including scanning electron microscopy, raman spectroscopy, thermogravimetric analysis, differential scanning calorimetry and nanoindentation.

Research areas

- Nanomaterials
- Nanophosphors and nanostructured carbon
- Biofuels
- Polymer extrusion
- Biodegradable food packaging
- Organic light emitting diodes (OLEDs)
- Display materials

Current projects

Dr P Allan is conducting an investigation into the use of materials from renewable resources for automotive components with improved physical properties. Other projects currently active in the Centre are studying bio-fuels, OLEDs, phosphors, natural polymers and fibres, cements and recycled materials.

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✉️ wolfson-centre@brunel.ac.uk

Amir Khamsehnezhad

For my PhD I am investigating the application of ultrasonic vibrations on polymer processing for the improvement of product properties.
Mathematical Sciences

Mathematical Sciences at Brunel has an established international reputation and is home to three University Research Centres – the Brunel Institute of Computational Mathematics, Brunel University Random Systems Research Centre, the Centre for the Analysis of Risk and Optimisation Modelling Applications and the Centre for Systems and Synthetic Biology – as well as a number of research groups.

Mathematical Sciences at Brunel offers PhD, MPhil and the New Route PhD, which includes a tailor-made programme of taught modules to enhance your research. More information on the New Route PhD is available on page 28.

Research areas

- Applied analysis
- Computational mathematics
- Continuum mechanics
- Mathematical physics
- Statistics and operational research

Current projects

Konrad Hoppe is working in the field of complex networks. This research area is concerned with the understanding of interactive systems that contain large numbers of participants. In particular, his research aims to predict various macroscopic properties such as time until consensus can be reached, the extent of epidemics and transport times on networks that are composed by empirically observable microscopic rules. The outcome of this research finds applications in diverse fields such as epidemiology and financial risk analysis.

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Mr Roberto Bustreo

We are developing numerically efficient heuristics for computation of Value at Risk for financial portfolios which contain nonlinear instruments, such as options of possibly non-Gaussian risk factors (e.g., non-Gaussian asset price returns or short term interest rate). The emphasis is on preserving the non-Gaussian tail behaviour of the individual risk factors while avoiding the expense of full Monte Carlo simulation.
Ben Moxey

I am doing a PhD in the Centre for Advanced Powertrain and Fuels Research (CAPF) investigating the combustion flame development and burning characteristics of alcohol fuel blends in a spark-ignition engine. This work has involved designing a specialised cylinder head with a glass roof so I can use a high-speed camera to record the combustion. With these images, using in-house software, I can compare and contrast the differences between how the various fuels burn and interact. My studies have been so well supported by my supervisor and the department; I was even able to go to Poland to a conference to present a paper based on the work I was doing. Next I will be joining the automotive consultancy MAHLE Powertrain.
Music

At Brunel the focus is on twenty-first century musicianship. Programmes focus on the music of our time, but are informed by a broader understanding of the history and materials of western music and of other musical traditions. Staff include some of the leading figures in European contemporary music: composers John Croft, Christopher Fox, Colin Riley and Jennifer Walshe, ensemble music innovator and improvisation leader Peter Wiegold, musicologist Nicholas Attfield, jazz musician Frank Griffith, electronic music experimentalists Harald Muenz and Carl Faia and leading contemporary pianist Sarah Kingdom-Nicolls. Artists in association include Apartment House, Leafcutter John, and Piano Circus, who work with postgraduate composition students through workshops. Supervision is offered at MPhil and PhD levels.

Research areas

- Brunel Institute for Contemporary Middle-Eastern Music
- Centre for Contemporary Music Practice
- Institute of Composing

Current projects

Christopher Fox, Professor of Music, is working on a series of compositions which explore how we perceive music – what we hear and how we remember it. His most recent large-scale work is Tales from Babel, a collaboration with speech scientists and the vocal ensemble, The Clerks, which explores the extent to which our brains are able to process different strands of information which are being received simultaneously.

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Gregory Emfietzis

The main reasons I chose Brunel were my supervisor, Professor Christopher Fox, and a dynamic music department, home to some of the biggest names in British contemporary music such as Bob Gilmore and Peter Wiegold. My time at Brunel helped my development greatly. It wasn’t only the high level of teaching and supervision I received – I am particularly fond of the direction and accompaniment I enjoyed, the motivation and encouragement, the widening of my horizons. Since I left Brunel there have been many interesting work opportunities. I was selected as part of the London Symphony Orchestra’s Soundhub Scheme, where I’ve created Music Impossible, a shadow music theatre project, and am currently developing new work for the London Symphony Orchestra. I won a competition hosted by the Wiener Konzerthaus to mark its 100th season and worked with musicians of the Berlin and Vienna Philharmonics for the performance of my work Fear (not). The last of this series of engagements was the recent production of my opera The Darkness of Mistico (libretto by M.Loulaki), produced by the Greek National Opera.

Paul McGuire

My research focuses on re-imagining how performers approach musical instruments, on sounds that are underused and often considered incidental. I completed Marshes (2013) for mass guitar ensemble; electric guitar players bow their instruments with pieces of dowel to generate a delicate, wailing sonority and beat their instruments with marimba mallets to create opaque bell-like drones. Acoustic guitar players bow their instruments with loosened cello bows, producing a “fizzing” sound. I use graphic notation: musical cells are plotted onto a horizontal timeline; each cell depicts the speed and pressure at which the instruments are bowed and the speed at which the guitars are beaten with mallets.
Occupational Therapy

The occupational therapy division is committed to evidence based practice and teaching. Our staff are active researchers and regularly publish in national and international journals. Our research activity is expanding and most is focused on current practice and linked with NHS Trusts or Social Service departments. We welcome applications for PhDs and potential applicants are welcome to contact members of the OT team:

www.brunel.ac.uk/shssc/subject-areas/occupational-therapy/people

The Centre for Professional Practice Research draws upon academics, service users and practitioners with specific practice skills and/or an interest in research embedded within practice. A strong emphasis is placed on promoting critical debate and evidence based practice. Key areas of research are teaching and learning in professional practice, occupational therapy based research in practice, supportive environments and evidence based practice. The Centre runs a series of public lectures each year and has attracted international academic speakers such as Professor Jeannie Jackson, Professor Mary Law, and Professor Michael Iwama.

Research areas

We have expertise in wide range of clinical areas including:

- mental health
- older adults
- rehabilitation
- pediatrics

Current projects

Dr Georgia Spiliotopoulou (PI), Dr Anita Atwal, Dr Anne McIntyre and Shirley Russell (British Polio Fellowship) were awarded a grant from the UKOTRF Research Priority Grant to develop, validate and determine the usability and reliability of national guidance on measuring the home environment for provision of minor assistive devices.

Nicola Plastow is an occupational therapist who was awarded a fellowship to fund a PhD project over three years to explore the relationship between performance of food-related activities and hoped-for and feared possible selves as older people age.

Contact us

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Physiotherapy

Our research focuses on the management of a range of long term musculoskeletal, neurological and respiratory conditions, including chronic pain, stroke and primary hyperventilation syndrome. Our research explores the efficacy of rehabilitation strategies, the environments in which they can be used and the patient’s lived experience of these conditions and their management. The Physiotherapy division hosts the Centre for Research in Rehabilitation (CRR), an interdisciplinary research centre with diverse membership that reflects the complexity of rehabilitation as a dynamic field of practice and research. CRR focuses on physical disability and rehabilitation research. As a “Centre Without Walls” with flexible external links, it has become a magnet for the provision of expertise in research in rehabilitation. We also work collaboratively with our local health providers and practitioners in order to support research development and to ensure that our focus remains clinically directed to maximise its impact.

PhD applications are invited for self-proposed topics or for research that is aligned with existing streams.

Research areas

- The effectiveness of contemporary rehabilitation strategies for long term conditions (with a focus on stroke, chronic pain and primary hyperventilation syndrome)
- Environmental influences on current rehabilitation strategies
- The development of novel rehabilitation approaches (with a focus on stroke, chronic pain)
- Exploring the lived experience of chronic illness

Current projects

Dr Neil O’Connell has been investigating the use of emerging non-invasive brain stimulation technologies as a potential intervention for chronic pain. His research included systematic reviews and meta-analysis with the Cochrane Collaboration, an exploratory clinical study in patients with chronic low back pain and an investigation into potential biases in this field of clinical research.

Alyson Warland is currently undertaking PhD research into the use of Wii technology in stroke rehabilitation.

Contact us

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Politics and History

Politics and History at Brunel prides itself on the quality and relevance of its work. It places great value on investigative and theoretical projects but also stresses the usefulness of its research to the community at large. Academics achieve impact by networking extensively with other scientists, policy makers and civil society, acting as researchers, educators, and advisors to the government and community. PhD students benefit from working and researching alongside internationally leading scholars across a diverse range of topics and take an active role in the organization of local, national and international events and workshops. Students also benefit from a multidisciplinary Master Class programme aimed at offering students access to a range of theories, methods and skills in the Social Sciences.

Politics and History research centres, groups and networks promote international, interdisciplinary and high impact research by acting as key points of contact between academics, practitioners and the wider community, organizing major events, and hosting associated researchers.

Research areas

• Isambard Centre for Historical Research
• Brunel Centre for Intelligence and Security Studies (BCISS)
• Magna Carta Institute
• Social and Political Thought Research Group
• International Studies Research Group
• Brunel Heritage Research Network

Current projects

Gareth Dale, Senior Lecturer in Politics and History, has recently begun a British Academy-funded research project on the “growth paradigm” - the idea that economic growth is by nature good, infinite, and the cure for a multitude of social ills. The project is animated by a sense of the apparently insoluble contradictions of economic growth: if it creates jobs we rejoice, if it raises carbon emissions we agonise. It will chart the growth paradigm’s social construction, with analysis of its relationship to the evolution of the capitalist mode of production, as well as the work of key thinkers who have shaped it.

Elisabetta Mocca is currently researching ‘Multi-level Governance and Environmental Policy: The role of Transnational Municipal Networks in the definition of local policy-making’.

Contact us

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Psychology

Psychology at Brunel provides high quality research training in a stimulating, intellectually-intensive environment. Academic colleagues offer expert supervision and take an active and ongoing interest in the research being conducted. In addition to regular meetings with supervisors, research students participate in research seminars, and a variety of skills and methodology training sessions. Students are actively encouraged to present at disciplinary research seminars, and are encouraged to participate in national and international academic conferences. Students also benefit from a multidisciplinary Master Class programme aimed at offering students access to a range of theories, methods and skills in the Social Sciences. We have an international research reputation, with particular expertise in areas such as neuropsychology, psychoanalysis, development psychology and social psychology. Research in Psychology is organised around five centres:

Research centres

- Centre for Cognition and Neuroimaging (CCNI)
- Centre for Culture and Evolutionary Psychology (CCEP)
- Centre for Research in Infant Behaviour (CRIB)
- Centre for the Study of Expertise (CSE)
- Centre for the Study of Health and Well-being (CSHW)

Current projects

Tara Marshall, Lecturer in Cross-Cultural Psychology, has examined cultural variation in attachment and intimacy in romantic relationships and the emerging role of social media.

Nicholas Pound has carried out influential research on associations between testosterone and facial appearance and on the importance of facial masculinity and body shape for female mate choice (with Clark, Scott & Price).

Jayanthiny Kangatharan’s project is funded by the Brunel Isambard Studentship scheme and looks at the possible contribution of vowel hyperarticulation to speech communication.

Lisa Kunn is researching developmental & cross-cultural investigation of emotions and traits within the human voice and is funded by the ESRC.

Miki Tanaka’s project explores the psychological reactions of people in Fukushima during the ongoing radio-active danger.

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Social Work

The Social Work staff group at Brunel represents a wide range of practice and academic experience in social work and social policy. Through programme partnership, the Social Work division maintains close links with social service and voluntary organisations. Research activities take place through five research centres, listed below.

Research areas

- Brunel Institute for Aging Studies (BIAS)
- Centre for Child and Youth Research (CCYR)
- Centre for Citizen Participation (CCP)
- Centre for Human Geography (CHG)
- Centre for Youth Work Studies (CYWS)

Current projects

Professor Judith Harwin was principal investigator of the funded independent first stage evaluation of the Family Drug and Alcohol Court (FDAC). The aims were to describe the FDAC pilot and identify set-up and implementation lessons, make comparisons with standard court proceedings involving parental substance misuse, including a comparison of costs, and to indicate whether this different approach might lead to better outcomes for children and parents.

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Jasna Russo

I am investigating the potential emergence of a social model of madness based on personal accounts, research and the analytic work of authors who identify as mental health service users or psychiatric survivors. The methodology of this project sets out to demonstrate the value of interaction, shared identity and dialogue in generating knowledge and understanding complex human experiences. The working title of my thesis is "Towards a first person-defined model of madness".

Sociology and Communications

Sociology and Communications research at Brunel tackles core theoretical questions and engages with both the international research community and relevant groups across industry, government and the public, bringing together theoretical and practical concerns to develop fresh approaches to new and classic interdisciplinary themes and problems. Brunel Sociology and Communications supervises MPhil and PhD students from around the world. You will be provided with careful supervision and rigorous, appropriate training. Students also benefit from a multidisciplinary Master Class programme aimed at offering students access to a range of theories, methods and skills in the Social Sciences.

Sociology and Communications welcomes enquiries from potential PhD candidates in any area of specialism. Members of our research centres and networks are at the forefront of study into subjects as diverse as globalisation, health, multiculturalism, new media, popular culture, science and technology.

Research areas
- Centre for Biomedicine and Society (CBAS)
- Centre for Culture, Media and Regulation (CCMR)
- Centre for Comedy Studies Research (CCSR)
- Moral Panic Research Network

Current projects
Sarita Malik, Lecturer in Sociology and Communications, has been awarded a research grant from the Arts and Humanities Research Council (AHRC) to explore the debate around current filmmaking and cultural diversity. Her previous AHRC-funded project (2012) examined the role of Diasporic film and communities, in partnership with the British Film Institute. This new research aims to better understand how community filmmaking practices in culturally diverse contexts contribute to the wider film ecology.

Funded by a Wellcome Trust PhD Studentship, John Gardner’s project is entitled ‘A Sociology of Medical Innovation: Deep Brain Stimulation and the Treatment of Children with Dystonia’.

Nancy Tamimi is researching the use of electronic nicotine devices (E-Cigarettes).

Contact us
- www.brunel.ac.uk/contact-admissions
Sport Sciences

Staff in the Department of Sport Sciences have international reputations for their research and consultancy, working with many organisations. Many staff are experienced practitioners, either sport and exercise scientists accredited by the British Association of Sport and Exercise Sciences (BASES) or sport and exercise psychologists accredited by the British Psychological Society (BPS) and Health and Care Professions Council (HCPC).

As well as state-of-the-art sports and laboratory facilities students benefit from excellent teaching and supervision by staff who are publishing high impact cutting edge research in the sport, exercise and health sciences.

Research areas

- The Brunel Centre for Sport, Health and Wellbeing (BC•SHaW) – social sciences, sports management and psychology of sport
- The Centre for Sports Medicine and Human Performance (CSMHP) – biomechanics, physiology, sport psychology and motor control
- Centre for the Study of Expertise (CSE)

Current project

Colm Murphy has received funding from the Lawn Tennis Association (LTA) for a PhD under the supervision of Professor Mark Williams, Dr Robin Jackson and Dr Dan Bishop to undertake research focusing on how best to capture and train anticipation and decision-making skills.

Colm will work closely with his mentors at Brunel as well as with Dr Karl Cooke, Head of Sport Science at the LTA. The intention is to use player-based tracking data to create computer-based animations of match situations that may be used to enhance the development of anticipation and decision-making skill in elite players.

Contact us

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Theatre

Theatre at Brunel offers supervision for MPhil and PhD research degrees in a wide range of areas, primarily in performance as research and theatre practice/theory, performance writing and digital performance/media arts. The Centre for Contemporary and Digital Performance runs an annual series of Performance Research Seminars. The Centre’s research group seeks to explore and to help define the future of performance and theatre particularly in its intersections with digital cultures, and with new media technologies and communications in the creative industries.

Research areas

- Theatre history
- Gender and sexuality in performance
- Post-colonial drama and dance
- Performance writing and live performance creation
- Directing and script development
- New dramaturgies and scenographic practices
- Digital performance and digital art
- Interactive wearable design
- Choreography and mixed reality choreographic/installation
- Alternate embodiments/virtual world performance
- Bio-art and bio-technologies
- Performance of socially engaged practices
- Site-specific and contextualized performance
- Applied drama/community politics
- Gender and sexuality in performance
- Audio-visual art and live coding

Current projects

Prof Thomas Betteridge is working on an AHRC funded project Staging and Representing the Scottish Renaissance Court, centred upon Sir David Lyndsay’s play *A Satire of Three Estates*. The aim was to examine through performance Lyndsay’s extraordinary play and to locate it within current debates over Scottish identity and culture.

Contact us

Website: [www.brunel.ac.uk/contact-admissions](http://www.brunel.ac.uk/contact-admissions)