This guide provides a summary of each of the Faculty of Engineering’s research divisions, the groups within these divisions, and other cross-faculty research groups. These details were compiled in November 2013 and were correct at the time of publication.

For further guidance on pursuing a PhD in any of these areas, please consult the website of the relevant research division or research group as listed below.

An up-to-date list of PhD projects and studentship vacancies within the Faculty can be found at:

www.nottingham.ac.uk/engineering/research/availablephdprojects.aspx

Please note the funding restrictions on studentship listings at the above page, as some studentships may not be available to international students.

**Electrical Systems and Optics**

www.nottingham.ac.uk/engineering/research/electricalsystemsandoptics

The Division researches innovative methods to use and develop electrical, electronic, optical and materials technologies to solve a wide range of technical problems across industry and the biological sciences, over a range of size scales from kilometres to nanometres. Underpinning much of the work is our expertise in electromagnetic modelling. The Division’s particular strengths include photonic and optical engineering, power electronics and ultrasonics.

The Division has strong links with other leading research institutes and industrial partners worldwide and is involved in a number of pioneering projects of global significance.

**Applied Optics Research Group**

The Applied Optics Research Group is a world leader in the application of optical, ultrasonic and instrumentation engineering conducting multidisciplinary research spanning physical scales from the sub-molecular to the largest structures in the solar system. The group host two platform grants in bioimaging and advanced ultrasonics. Research falls into four broad areas, with much interdisciplinary work across the group:

- Biomedical applications
- Integrated sensors
- Laser ultrasonics
- Microscopy and optical techniques

The group’s extensive facilities – which include three state-of-the-art optics laboratories, a wide range of electronic and VLSI design facilities, the Applied Ultrasonics Laboratory, and the Space
Integrated Optical Sensors (SIOS) laboratory – provide an exceptional environment for developing innovative technologies.

Members of the Applied Optics Group are involved the Institute of Biophysics, Imaging and Optical Science.

**George Green Institute for Electromagnetics Research**

Electromagnetics is both pervasive and fundamental to our everyday lives and the Institute’s work is driven by the need to develop predictive techniques that can be used for electromagnetic design. Having developed the transmission line modelling method (TLM), The George Green Institute for Electromagnetics Research (GGIEMR) is an international centre of expertise in this area. In addition, we are a leader in photonic and optoelectronic simulation and simulation for electromagnetic compatibility and power quality.

Collaborating with academia and industry to address the challenges posed by the rapid growth in technology, the Institute’s interdisciplinary research portfolio encompasses both blue sky and real world problems. Exploitation of modern high performance computing architectures is of paramount importance as well as the verification of new techniques through experimentation and the Institute’s facilities are well equipped to deliver on all these fronts.

**Power Electronics, Machines and Control Group**

One of the largest research groups in its field worldwide, the Power Electronics, Machines and Control Group (PEMC) has world leading research activities across a range of fields including:

- Power electronic energy conversion, conditioning and control
- Power electronics integration, packaging and thermal management
- Motor drives and motor control
- Electrical machines

The group mission is to sustain an internationally renowned research portfolio spanning all key power electronic disciplines from power device and component technology to complete power conversion systems. In this respect the group is unique, in that it has world-class expertise and experimental facilities encompassing all of these disciplines.
Energy and Sustainability

Research undertaken within the Energy and Sustainability Research Division addresses issues of global importance in the area of sustainable design and development and the technologies and decision making tools to support it; focusing on energy and the environment.

Driven by internationally recognised leaders in each of our core areas, much of our work is cross-disciplinary (chemical, mechanical and environmental engineering; chemistry; mathematics; applied physics) and multi-agency; supported by outstanding experimental, analytical and computational facilities.

Environmental Physics and Design (ePad) Research Group

Environmental Physics and Design is a new research group led by Prof Darren Robinson. It focuses on the application of physical principles to the environmental modelling and design of technologies, buildings and urban settlements.

The Group is organised along the four key themes outlined below:

Social, building and urban physics

The application of physical principles to better understand the behaviour of and interactions between people, buildings and the urban context in which all are accommodated with a view to improving upon social, economic and environmental sustainability. Development of simulation programs to support more informed sustainable building and urban design decisions.

Psychophysics and pedagogical research

To contribute towards developing a better understanding of the relationships between people and their perception of the physical world. Concentrating primarily on human perception and cognition of visual, aural and thermal stimuli, this group explores perception and cognition at both uni-and-multimodal levels. A secondary research theme of this group is to explore pedagogical methods in the advancement of the teaching of sustainable design.

Low carbon building design and simulation

Development of advanced technologies for low carbon building design, supported through numerical simulation and experimentation.

Landscape, architecture and urban design

This research focuses upon the design of environments at all scales and in many contexts. Projects also relate to working with historic and contemporary contexts to create more sustainable futures within the built and natural environment.
ePad are involved in a number of ongoing research projects supported by prestigious funding bodies and in collaboration with influential industrial and academic institutions. These projects include:

- CiNERGY: Smart Cities with Sustainable Energy Systems
- InSMART— Integrative Smart City Planning
- SimStadt: Energy Simulation of City Districts
- Roadmap on the Future Research Needs of Tall Buildings

**Fossil Energy and Carbon Capture and Storage**

The research programme in fossil energy and carbon capture and storage has expanded enormously over the past 3 years with the current portfolio of projects amounting to ca. £14M. It encompasses a number of key projects and initiatives, including the EngD which is the UK focal point for PhD training in the field, a number of EPSRC E.ON and China grants on CO2 capture technologies, projects on oil exploration and recovery. In general, the research is highly collaborative and involves extensive collaboration with industry regarding exploitation, together with internationally leading research centres, including the Chinese Academy of Sciences, Southeast, Tsinghai and Zhejiang Universities.

**HVACR and Heat Transfer Research Group**

The group undertakes cutting edge, high-quality, both fundamental and applied research related to heating, ventilation, air-conditioning and refrigeration (HVACR), as well as wide range topics of heat transfer and thermal management. The fundamental aspects of the research are concerned with phase change heat transfer, sustainable refrigerants and flow, micro-nano fluid, biomimetic functional surface (porous/roughness) and wetting, efficient cooling technologies (impinging, film and evaporative cooling, high efficient heat pipes), and multi-scale numerical modelling.

This group aims to carry out world leading research on HVACR and heat transfer encountered in the indoor environments of buildings, vehicles, marines and aeroplanes. Our research focuses on fundamental study of HVACR & Heat Transfer processes, associated technological innovations and their practical applications. Our key expertise includes:

- Heat transfer enhancement
- Efficient cooling technology development
- High efficiency heat pipes
- Multi-scale numerical modelling and simulation
- Sustainable refrigeration and air-conditioning
- Thermal management for low carbon vehicles
Industrial Microwave Processing

The NCIMP conducts multi-disciplinary research, development and commercialisation studies into microwave heating technologies which deliver economic and technical benefits across fields as diverse as food, fuels, mineral processing, pharmaceuticals and recycling.

Expertise in the NCIMP is highly multi-disciplinary and spans process engineering, electrical and microwave engineering, process assessment and materials science.

Commercialisation based on a fundamental understanding of the interaction between electromagnetic energy and materials leads to the development of sustainable energy efficient products and processes.

Our researchers have access to world-class laboratories and the latest equipment as well as advanced computing resources. Strong links to global industry, government departments and other institutions world-wide give rise to world class collaborative partnerships.

We value industry engagement in applied research and we understand the strategic challenges that industry is facing and the opportunities for innovation to unlock and deliver value and competitive advantage.

Our work with industry sponsors is always based on mutual understanding and genuine shared interest, with a focus on the highest quality delivery to commercial timescales.

Thermofluid Mechanics Research Group

Research activities commonly have a connection with the automotive, aero or power generation industry. Areas of research broadly include:

- the performance and technology of reciprocating engines, turbomachinery and motors
- flow visualisation, flow control and drag reduction
- CFD models, applications and mathematical techniques

The group has extensive and modern facilities for applied work on engines and machine performance and on generic problems such as the fundamentals of turbulence. The group is also a prime user of the University high performance computing facility for its CFD activity, and maintains expertise in the use of several proprietary codes including Fluent, CFX and KIVA.

Recent research themes include the reduction of inefficiency in engines - windage losses in transmissions, rubbing friction in reciprocating engines, cooling of electric motors; the understanding and improvement of combustion in engines, cookers, and power stations; and biomedical diagnostic improvements. New themes continue to develop: environmental and climate change concerns are increasingly influencing directions, and driving initiatives in areas such as wind energy.
Infrastructure, Geomatics and Architecture

The Infrastructure, Geomatics and Architecture Research Division conducts a unique and diverse blend of research in the areas of:

- Transportation: pavement materials, infrastructure asset management, risk and reliability assessment and coastal dynamics
- Geomatics: engineering surveying and remote measurement, atmospheric effects, geospatial science, positioning and navigation
- Human Factors: human-computer interfaces, the safe use of objects by children, rail and road safety and electronics assembly
- Architecture, with speciality fields in climate and environment, humanities and tectonics

The Division enjoys state-of-the-art facilities, as well as rewarding relationships with industry partners and other well-regarded research institutions around the world.

Architecture, Climate and Environment Research Group

The Architecture, Climate and Environment Research Group (ACE) aims to inform the sustainable practice of architecture and engineering in order to enhance the quality of the built environment through world leading fundamental and applied collaborative research. The work undertaken by the group is predominantly related to mitigating the impacts of, and adapting to, climate change, reducing energy use in the built environment and enhancing comfort, productivity and well-being of building users.

This group was formed since 2008 by combining the strengths of the well-established Sustainable Energy Technology Group and the newer Environmental Design in Architecture Group to form a group with a comprehensive range of expertise in sustainability in the built environment.

Architectural Humanities Research Group

The work of the Architectural Humanities Research Group focuses on the history and theory of modern and contemporary architectural culture, with three distinct areas of research strength: architecture of museums; relationships between architecture, technology and human embodiment; architectural hermeneutics (architectural and urban interpretation, theory and criticism). Members have excellent international links and also engage with other researchers in related disciplines including:

- Culture, Film and Media
- Computer Science
- Philosophy
- Geography
- History
- Art History

The group aims to carry out world-leading work in architectural and urban history, theory, culture and design. Members are active in producing, disseminating and supervising high-quality research across each of following thematic areas:

- History of architectural theory and criticism
- Architecture and embodiment
- Philosophy of technology, tectonics and materiality
- Museum and gallery culture and design
- Digital media in museums and exhibitions
- History and theory of modern and contemporary architecture and urbanism
- Urban design and regeneration

**Architecture and Tectonics Research Group**

The Architecture and Tectonics Research Group addresses the core of architecture including design as research and research that supports and stimulates design. The making of architecture is researched by reflective practitioners, from:

- zero carbon architecture
- lightweight materials and structures
- new tectonic opportunities, digital fabrication
- 1:1 prototyping

Research is undertaken collaboratively, on a multi-national basis. It is a founder member of TensiNet Association and member of ACADIA. The group encompasses Architecture and Built Environment’s Project Office, which undertakes live projects as a mode of research.

The group aims to carry out predominantly applied research in the fields of digital prototyping, additive manufacturing, lightweight materials and structural systems, with a view to minimising the impact of building construction on the environment. It anticipates foster a dynamic programme of research using the facilities of the new Wolfson Prototyping Hall and Centre for 3D Design to develop effectual low-carbon building components and assemblies.
Human Factors Research Group

The HFRG works on projects funded by sponsors from Research Councils, industry, European Commission and charities.

We collaborate with colleagues from other disciplines, including manufacturing and electrical engineering, computer science, geospatial science, medicine and education, in our own and partner institutions.

Our projects fall under the following broad themes:

- Human factors of novel technologies
- Human factors in transport
- Complex systems, safety and human behaviour
- Human factors in design

Nottingham Geospatial Institute

The Nottingham Geospatial Institute (NGI) is a member of the Infrastructure, Geomatics and Architecture Research Division of the Faculty of Engineering. Research is central to the activities of NGI in order to maintain our position at the forefront of international efforts in our field. It is also an integral part of the training and education of undergraduates and postgraduates.

NGI research activity has been recognised by the Research Assessment Exercise in 2008 as being world-leading or internationally excellent, placing Nottingham in the UK's top five universities for engineering.

The NGI research strategy builds on the established reputations of the former IESSG and CGS, growing its international reputation as a centre of excellence in its fields of activity. New developments and growth will be balanced by concerted efforts to ensure the long-term stability of the NGI through developing a portfolio of research council, European and industrial research funding.

The Institute undertakes research on many key aspects impacting on, and integrated with, geospatial engineering and science, utilizing a diverse range of scientific disciplines including geodesy, remote sensing, engineering surveying and GIS.

NGI also operates a knowledge transfer and business engagement unit, GRACE, which focuses on assisting organizations, businesses, start-ups and entrepreneurs, to take advantage of satellite navigation.

Nottingham Transportation Engineering Centre

The NTEC is the UK's foremost university-based research organisation in pavement engineering, infrastructure asset management and their sustainability. It is also one of the world's leading centres in these fields.
Our research in Pavement Engineering has expanded since its inception in 1954 to embrace all pavement materials, design, evaluation and management.

From beginnings in road asphalt, research now extends to:

- Dock, airport and rail pavements
- Wider transportation infrastructure
- Asset management and maintenance
- Risk analysis and reduction in transportation systems
- Congestion avoidance.

Some of the research listed on these pages is undertaken by, or in collaboration with, our colleagues in the Nottingham Centre for Geomechanics, in Chemistry, in the Environmental Technology Centre and in Computer Science.

Manufacturing and Process Technologies

The University of Nottingham is renowned internationally for the excellence of its manufacturing and process engineering research and for significant contributions to manufacturing and process science, technology development and industrial applications, across a range of sectors including aerospace, automotive, pharmaceutical, biotechnology, water treatment, consumer products, medical and power engineering.

The Division has world-class facilities for design, manufacturing, assembly, measurement, testing and modelling as well as a proven track record in delivering high quality research, leading to numerous patents and high impact peer reviewed publications. Research in the Division focuses on the development of innovative safe and sustainable technologies in the fields of manufacturing, harvesting and conserving resources.

Additive Manufacturing and 3D Printing Research Group

The Additive Manufacturing and 3D Printing Research Group (3DPRG) hosts the EPSRC Centre for Innovate Manufacturing in Additive Manufacturing.

Additive Manufacturing (AM) is the direct fabrication of end-use products and components using technologies that deposit material layer-by-layer. It enables the manufacture of geometrically complex, low to medium volume production components in a range of materials, with little, if any, fixed tooling or manual intervention beyond the initial product design.

As a manufacturing technology, AM enables a number of value chain configurations including personalised component part manufacture and also economic low volume production within high cost base economies. This innovative approach to manufacturing is now being embraced.
globally across industry sectors from high value aerospace and automotive manufacture to the creative and digital industries.

The research group has a long standing international reputation in Additive Manufacturing and 3D Printing research. The research group members hold expertise in multiple key areas:

- Design systems and optimisation methodologies
- Additive Manufacturing processes
- Materials Development
- Applications demanded by the user community

**Advanced Manufacturing Technology Research Group**

The Institute, opened by the Rt Hon David Willetts MP, Minister for Universities and Science, is driving development of cutting-edge technology with the aim of radically improving all aspects of advanced manufacturing.

The Institute encompasses an international, multidisciplinary team of established academics in their respective fields in the UK and at our campuses in Malaysia and China. Its research portfolio presents a unique integrated, holistic approach to manufacturing and focuses on seven main themes:

- Advanced manufacturing technologies
- Process and environmental technologies
- Composite manufacturing
- Human factors in manufacturing
- Additive manufacturing
- Digital manufacturing
- Regenerative medicine and bio manufacturing
- Food
- Operations management, logistics and life cycle management

The Institute has excellent links with industry and has partners in such diverse sectors as aerospace, automotive, medical, instrumentation, defence, power engineering, sustainable energy, textiles and clothing, recycling and consumer products. Major global stakeholders include Airbus, Rolls-Royce and BAE Systems with strategic and operational links to the Manufacturing Technology Centre (MTC) in Coventry.

Our advanced manufacturing expertise focusses on next generation knowledge-driven manufacturing methods, technologies, systems and services, where we have supported over 200 regional companies across the supply chain.

Nottingham is one of the founding partners of the MTC and the High Value Manufacturing Technology Innovation Centre (HVM TIC). These centres provide new opportunities for
manufacturing knowledge and technology transfer, allowing accelerated testing, demonstration and industrialisation of manufacturing concepts, technologies and processes developed at Nottingham.

Biorenewables and Bioprocessing Research Group

We specialise in sustainable manufacturing and treatment of chemicals and materials from renewable resources. Our approach integrates fundamental discoveries in biological science, chemistry, and engineering to deliver innovative processes and products for tomorrow’s society.

The group is funded by the UK Research Councils and Industry, and has superb, newly-equipped laboratories. The group is truly interdisciplinary (engineering, biology, chemistry, materials science), and collaborates with internationally leading groups in the UK, Europe, Australia and the USA. The group is funded by the UK Research Councils and Industry, and has superb, newly-equipped laboratories. The group is truly interdisciplinary (engineering, biology, chemistry, materials science), and collaborates with internationally leading groups in the UK, Europe, Australia and the USA.

The group’s main aims are to use cells and enzymes in chemicals manufacturing, water and waste treatment and resource management. Targets include engineered microorganisms for production of key platform chemicals and biofuels, including styrene, methacrylic acid and butanol. Since biocatalysis alone does not always provide efficient access to industrial chemicals, our group members were amongst the first to integrate chemocatalysis into biocatalytic systems. This innovative area of synthetic biology provides microbial-catalytic cascades for conversion of renewable feedstocks to xenobiotic chemical products, and hybrids between chemical catalysts and enzymes to fill gaps in the enzymatic repertoire.

Fluid and Particle Processes Research Group

Research undertaken by the Fluid and Particle Processes Research Group covers almost every aspect of chemical and environmental engineering, from the energy and mining industries to pharmaceutical processing, and product design to recycling.

A vast range of materials can be classified as 'fluids' or 'particles', such as water, petroleum, chocolate, pharmaceutical powders and air. We even study some at first sight rather surprising topics, such as extracting forensic information from bloodstains at crime-scenes, and understanding how pedestrians—a sophisticated sort of particle!—behave in crowds.

Current research in the group encompasses the microscopic fundamentals of material structure and behaviour through to the practical design of large-scale industrial processes.

Our research methods range from experiments to computer simulations. Experiments cover all scales from microscopic observation and control to pilot-scale rig development. Our computer simulations, making substantial use of the advanced high performance computer cluster at Nottingham, again cover all the scales: from the behaviour of microscopic particles suspended in liquids, to models of large-scale environmental pollution by airborne dust.
Materials, Mechanics and Structures

Materials, Mechanics and Structures Research Division comprises four research groups with strong common elements.

The research work within the division spans a range of applications including medicine, aerospace and automotive engineering, energy and the construction industry and it includes work from the most fundamental studies up to near-commercial investigations. All groups within the division benefit from extensive modern laboratory facilities to support their experimental programmes and in each case, high-performance computing is used to run extensive and complex models.

Advanced Materials Research Group

We aim to explore the links between the processing of materials, the development of their microstructures and their useful functional properties across a range of applications. Our goal is to enhance the performance of existing materials and develop new materials with new functions.

We examine the ‘process-structure-property’ interrelationship of materials. Our research includes:

- Advanced materials forming
- Engineering of nanomaterials
- Hydrogen storage materials
- Laser processing
- Nanotubes
- Novel photonic glass fabrication
- Surface engineering

Nottingham Centre for Geomechanics

The Nottingham Centre for Geomechanics (NCG) is a multi-disciplinary research centre that brings together expertise from civil, materials, and mining engineering, and also mathematics to solve all forms of soil and rock-related problems in engineering design and construction.

At the NCG we conduct both fundamental and applied research, funded from European and national sources, in a range of geotechnical engineering areas. Members of the centre are research leaders in their respective fields.
Our mission is to be an internationally renowned centre of excellence in the field of geomechanics by providing a focus for fundamental and applied research, research training, and also technical service support for the geotechnical industry.

Our expertise covers:

- Constitutive and numerical modelling
- Physical and centrifuge modelling
- Laboratory and in-situ testing
- Porous materials characterisation
- Heat and moisture transport phenomena
- Soil and rock structure interaction
- Transportation geotechnics
- Underground excavation and tunnelling

**Polymer Composites Research Group**

The Polymer Composites Research Group operates within the Materials, Mechanics and Structures Research Division and focuses on the processing and performance of polymer matrix composites. We have interests in both thermoset and thermoplastic matrices. Industrial links have always been a strong feature of our work, much of which involves collaboration with Ford Motor Company. The work is by no means exclusively automotive however and we have projects running which are linked with many other industrial sectors including aerospace, power generation and biomedical materials.

Our key activities include:

- Cost effective processing for thermoplastics and thermosets
- Textile composites, supported by an EPSRC Platform Grant
- Crashworthiness, including design for pedestrian safety
- Bio-composites, including work on regenerative implants
- End-of-life/recycling

We have recently been awarded a prestigious EPSRC Platform Grant for our internationally leading work on processing and performance of textile composites.
Other cross-faculty research groups

As well as working across the full spectrum of engineering disciplines, we have established a number of pioneering research centres at the interface between engineering and science. This enables us to accelerate world-changing technological innovation efficiently. It also provides Nottingham’s researchers and students with access to an extensive range of specialists who are international leaders in their fields of expertise.

Energy Technologies Research Institute

www.nottingham.ac.uk/energy

The University of Nottingham is a leading international centre for energy research, with a reputation for excellence across a broad range of technologies encompassing bioenergy, fossil energy, energy storage, the built environment and electrical grids with a current grant portfolio in excess of £40M.

The research is stimulating innovation, resulting in licensing and spin-off activity through collaborations with industry, developing national and global enterprise networks. As part of the strategy to further grow our internationally leading research programme, the University is investing £7M funding in new energy technologies and bioenergy buildings.

Nottingham is one of three universities (with Birmingham and Loughborough) comprising the Midlands Energy Consortium (MEC) which hosts the Energy Technologies Institute and where we have established the Midlands Energy Graduate School to provide a unique shared platform to improve the quality of Postgraduate Research (PGR) training in energy research.

Engineering Our Future Cities

www/engineering-rg/engineeringourfuturecities

Mass urbanisation is one of the greatest challenges faced by the world today. More than half of the world’s population now live in cities that cover just 2% of the world’s land surface yet they consume 75% of the world’s natural resources and produce a majority of its waste. Cities are now the major emitters of carbon dioxide to the atmosphere, and are being built at a phenomenal rate, the trajectory of this development is not sustainable.

Economies of scale from modern technologies are not evident so there is a clear requirement for a new model of sustainability. A step change is required in the planning and development of infrastructure systems and buildings that provide a “joined-up” approach to minimising environmental impact whilst maximising functionality. Meeting this task will require excellence across a range of research areas as diverse as high performance computing, materials, energy and sustainable architecture and urban planning.

Engineering our Future Cities is a cross-faculty strategy that will provide a concerted focus to research across the University of Nottingham. Existing research areas and emerging activity will provide integrated solutions to the emerging needs of the future city and its citizens, maximising the impact of our activity in areas that really matter.
Spencer Institute of Theoretical and Computational Mechanics

Named after Prof Tony Spencer, the Spencer Institute of Theoretical and Computational Mechanics is a multidisciplinary taskforce formed by academic staff from the Schools of: Civil Engineering; Mechanical, Materials and Manufacturing Engineering; Mathematical Sciences; and Chemical and Environmental Engineering at the University of Nottingham.

The aim of the institute is to integrate research on theoretical and computational mechanics taking place at the University of Nottingham to create a critical mass of expertise. This is a vital pool of knowledge that is available for potential industrial and academic collaborators to tap into for solving important real world problems.

It is the firm intention of the Spencer Institute to facilitate research activity in this field and to further enhance the University of Nottingham’s reputation for world changing technologies.

The institute also offers an MSc course with the primary objective of equipping future exponents of the technologies with the right tools to make an economic and social impact.

The Spencer Institute has a worldwide reputation for excellence in fields of computational modelling including the following:

- Finite Element Methods
- Computational Fluid Dynamics
- Boundary Element Methods
- Discrete Element Methods
- Meshfree Methods
- Asymptotic Methods

Institute for Aerospace Technology

The Institute for Aerospace Technology at The University of Nottingham is a major centre for aerospace research. Our aerospace research base is broad, current activity involves over 50 academics and a portfolio of over 70 externally funded projects.

Aerospace is a priority research area for the University. This status recognises the sector’s potential for growth and our ability to deliver influential world-class research and knowledge transfer which address global issues and challenges.

The Institute for Aerospace Technology builds upon the University’s broad research base and international leadership in a number of thematic areas to facilitate increased research and knowledge transfer activity.
We have a substantial research portfolio related to aerospace applications and technologies, with projects valued in excess of £50 million, including over £20 million in EPSRC funding.

Our research base is broad and involves over 50 academic researchers working in internationally recognised research groups, often in partnership with leading aerospace companies, including Rolls-Royce; GE; Airbus/EADS; Boeing; BAE Systems; Bombardier; GKN; Goodrich along with SME's in the supply chain.

Key aerospace research themes at Nottingham are:

- Aerospace Materials
- Aerospace Manufacturing
- More Electric Aircraft
- Aero Engines
- Aerospace Operations

We always welcome opportunities to establish links with new companies and explore additional areas of collaboration with existing partners.