Welcome to the Department of Civil Engineering
Why Engineering?

A recent report...

‘Engineers are crucial to the economy and society as a whole.

Engineers are the innovators and problem-solvers who really make a difference to people’s lives.

Engineers are the people solving pertinent challenges relating to infrastructure, energy, transport, water and sewage.

However the UK is facing an engineering skills shortage. Recent figures indicate that we need 69,000 more engineers in the UK every year just to meet industry demand.’
Our History

1891 Foundation of Battersea Polytechnic Institute

1963 Establishment of Space Structures Centre

1966 The University of Surrey attained Chartered University status, relocating to Guildford in 1968

Since 1991 Four Queen’s Anniversary Prizes

In 2010 EADS Astrium (now Airbus) acquired SSTL in what is believed to be the largest cash sale ever of a university spin-out company

2015 Announcement of The Times and Sunday Times Good University Guide 2016 University of The Year
Research in the Civil and Environmental Engineering Department

Students undertaking water monitoring and analysis projects

Improving small water supplies in Uganda and Malawi

Measuring air quality

Computational study of progressive collapse following an accidental loading such as blast or local failure.

Average vegetation change rate in Lake Poopó’s catchment for the period 2000-2014
Mapped using 28 satellite images from January
Award winning facilities

- Library
- Digital Resources
- HIVE – support centre on campus
- Virtual learning
- Workshops
- Additional Learning Support
We would like you to be part of our future

Our vision:

The Department of Civil and Environmental Engineering is committed to providing an environment in which every individual can achieve excellence within the profession.

Graduate Employment

95% of our students secure a professional or managerial job six months after graduating having studied Civil Engineering at the University of Surrey.

2015/16 NSS Survey Results:
Top-20 National Ranking
91% overall satisfaction
Why Civil Engineering at Surrey?

The department in numbers

~330 undergraduates studying:
• BEng/MEng Civil Engineering

~258 PGT students studying:
• MSc Advanced Geotechnical Engineering
• MSc Bridge Engineering
• MSc Civil Engineering
• MSc Infrastructure Engineering and Management
• MSc Structural Engineering
• MSc Water and Environmental Engineering

~33 PhD research students
Our Civil Engineering degree structure is very flexible

Year 1
- B.Eng.
- Civil Eng First Year Modules
- M.Eng.

Year 2
- B.Eng.
- Civil Eng Second Year Modules
- M.Eng.

Year 3
- B.Eng.
- Professional Training Year (optional)
- M.Eng.
- Civil Eng Third Year Modules
- B.Eng. Degree

Year 4
- Civil Eng Fourth Year Modules
- M.Eng. Degree
Towards becoming a Chartered Engineer

- Improved career prospects and employability
- Higher earning potential
- Demonstration of a professional attitude valued by employers and customers
- Enhanced status leading to higher self-esteem
- International recognition of competence and commitment
- Evidence of expertise
- Greater influence within own organisation and industry
- Recognition as a Countersignatory

(Engineering Council)
Choosing between MEng and BEng

**B.Eng.  Bachelor of Engineering, 3 or 4 years**
- Fundamental training to begin a career in the profession
- Allows potential to progress to further degree such as a specialist MSc as a step towards chartered status

**M.Eng.  Master of Engineering, 4 or 5 years**
- Opportunities for specialisation in chosen field
- Fully meets academic requirements for chartered status which enables you to undertake greater responsibilities

Switch between BEng/MEng option possible until the third year of teaching (level 6)
Equipping you for future challenges
Programme Detail

**Year 1 Modules include:**
- Fluid Mechanics and Pipe Hydraulics
- Materials and Statics
- Civil Engineering Practice and Surveying
- Mathematics
- Structures
- Engineering Geology
- Integrated Design 1

**Year 2 Modules include:**
- Structural Mechanics and Analysis
- Construction Materials
- Hydraulics and Environmental Quality
- Structural Design
- Soil Mechanics
- Numerical and Statistical Methods
- Surveying, Measurement
- Integrated Design 2

**Year 3 Modules include:**
- Individual Project
- Structural Engineering
- Geotechnical Engineering 1
- Environmental Engineering and Hydrology
- Construction, Business and Project Management
- Integrated Design 3
- Transportation Engineering

**Year 4 Modules include:**
- Multi-disciplinary Design Project (MDDP)
  - Semester one: 2 MSc modules of your choice
  - Semester two: 4 MSc modules of your choice
Learning and Teaching

Experience a Variety of Approaches

- Lectures, practical work and tutorials
- Workshops and laboratory work
- Team design projects
- Individual project
- SurreyLearn

Expect about 25 hours of contact time per week in Year 1
Surrey/ICE Scholarship Scheme

What is the scholarship?

Alliance between:
- University of Surrey
- The Institution of Civil Engineers (ICE)
- A broad range of leading companies in the profession

[Website Link]

www.surrey.ac.uk/scholarships/surreyice-scholarship
Surrey/ICE Scholarship Scheme

Example of progression of Scholar joining in Year 1

- Year 1
  - First Summer Placement (approximately 8 weeks)
- Year 2
- Professional Training Year (PTY)
- Year 3 (BEng)
  - Final Summer Placement (approximately 8 weeks)
- Year 4 (MEng)
  - Graduation
    return to sponsoring company

• The Scholarship runs on an **annual agreement** – the company funds the scholarship each academic year and the scholar agrees to train with the company at the end of each period.
Current position (2019-2020)

- Total of around 100 students on the scheme from all years of the course
- 15 students from scholarship on Professional Training Year (PTY)
- 28 students on PTY overall
- Example of overseas – Hong Kong, Qatar…
- Approximately 20 sponsoring companies involved
What are the benefits?

Financial benefits
- Salaried training in every year of your programme
- Bursary of £1,950 per year in addition to salary

Career and personal benefits
- Opportunities to develop professional skills
- Improved academic performance from skills developed
- Opportunity to begin progression to Chartered Engineer (CEng) status
- Mentoring and networking opportunities
- Fast tracked route to employment on graduation
- Great source of motivation (before, during and after your studies)
• Applications open – 1st of December 2019
• **Application deadline – 20th March 2020**
• Interview day in Central London (Friday 24th of April 2020)
• Further enquiries
  
  **Juan Sagaseta (Scholarship Coordinator) - icescholarship@surrey.ac.uk**

https://www.surrey.ac.uk/content/ice-scholarship-civil-engineering-application-form
Advantages of a Surrey Degree

Some Key Features

Teaching quality is our priority:
  You are our future!

Focus on graduate employability:
  One of the very highest graduate employment rates

Programme is fully accredited to:
- ICE (Institution of Civil Engineers)
- Institution of Structural Engineers
- Institute of Highway Engineers
- The Chartered Institute of Highways and Transportation
- Engineering Council
- EUR-ACE

Integrated Professional Training
  For those things you just can't learn in a lecture
Ioanna Papanikolaou
Currently working on the Thames Tideway

“As a Surrey/ICE Scholarship winner, I was matched with Costain, where I undertook paid summer placements and an industrial placement year – which were excellent opportunities to gain hands-on experience. I’m currently employed by Costain in the dual role of site engineer and innovations champion on the Thames Tideway project.”
Top companies keep on employing our graduates.

David Michael Robson

“After doing my multi-disciplinary project on airport design, I was offered a job in a civil engineering company in their aviation department. In the interview I presented much of the work I did in the project and they were highly impressed. This was very rewarding”
Ben Elphick
Currently working as part of the Thames Water Asset Management Program

“I’m now employed as a site engineer for Skanska working on the inspection and maintenance of raw water tunnels all around the Capital. In this picture, I’m in a 50-metre deep shaft under London: what makes the job special is that we work on tunnels, which the vast majority of people have no idea exist and even fewer get to see first hand”
My Surrey Experience

Mark Kawesa, final year student
Subsidiary of Soletanche Bachy Group
One of UK’s leading geotechnical specialists
Employs over 300+ people
Carries out contractual and in-house design for projects all over the UK, Ireland and North Europe
BSL have offices in the South and North (HQ) of England
Techniques Include:
Work placement learning: CFA piling

- Quick and easy to install
- Predominantly for more lightly loaded structures
- Great way to learn about the fundamentals of piling
Daily Records, concrete testing and quality assurance
Setting out project works in accordance with drawings & specification and design calculations
Supervising projects, communicating with main contractors
Preparing enquiry and order documents. Producing and processing weekly costs and production reports
Carrying out various monthly and weekly safety reports regarding site logistics, machinery, plant and, of course, people
ICE Attributes

• Knowledge and Understanding of Engineering
• Management and Leadership
• Commercial Ability
• Health, Safety and Welfare
• Interpersonal Skills and Communication
To conclude

I had an amazing time travelling all over the country working with Bachy Soletanche. I received a great understanding of how a piling contractor operates, and I gained a lot of transferable skills to use in my degree and career.

Special Thanks to Bachy Soletanche
SECOND YEAR

NIRODHA PERERA
LIVING OFF CAMPUS

- January-June – peak season
- Prices vary and often only 12-month contracts offered
- Surrey student pad/University of Surrey Lettings
- Responsible for bills internet/gas/electricity/water

You choose who to live with so choose wisely!
WORK

• Similar structure to year one
• Two semesters
• 8 modules
• Less contact hours
• You're expected to be more independent
• More group work
• The work you do this year counts!
SUMMER PLACEMENT

- Matched with Tony Gee through the scholarship scheme
- Geotechnics department
- 8 weeks paid placement
- 9am-5:30pm every weekday
- Insight into the working environment
- Good source of motivation
- Theory learnt helped with modules such as soil mechanics
CLUBS/SOCIETIES

- Boxing, harry potter, game of thrones, CIVIL ENGINEERING
- Vice president of Civil Engineering Society 😊
- Communication skills, organisation, planning, networking
- Alumni dinners, bar crawls, charity events, bowling, BBQs