Dear Reader
This is the first annual record for engineering people at Wolfson College Cambridge, and further articles, suggestions and comments for improvements are very welcome. This present format is merely a starting point, but I hope this activity proves useful.

Wolfson Engineers 2012

Second Year (Part 1B) Ke Chen writes:

My name is Ke Chen; I am from China, I have been studying in Singapore under full government scholarship for 4 years. I am currently in my second year of engineering study at Cambridge University. My study of engineering in Cambridge University has equipped me with strong analytical and numerical skills which give me edges to understand information, solve problems and make quick decisions. It is interesting and academically challenging. Furthermore, I am also the manager of the CNY charity casino in Cambridge. I also like to play basketball and watch movies. I hope I can do well in the rest of my course and become an outstanding engineer in the near future.

Wolfson 3rd year (Part 2A) student Jerry Thia writes:

Hello everybody. I am Jerry Thia from Singapore. I am currently into my third year at Cambridge and I am specialising in Information and Computing Engineering. My interest in this area stems from my fascination in being able to get a machine to perform and automate tasks. Academics aside, I was also with the Wolfson Badminton Team for the past few terms. I enjoy the game very much and being with the team gave me an excellent opportunity to meet new people during the inter-collegiate matches. The dynamic learning experience of the Engineering Tripos together with the warm, friendly environment here at Wolfson have my stay at Cambridge truly wonderful.

Undergraduate supervisors
The University of Cambridge provides teaching through its Engineering Department (CUED) throughout Part 1 (years 1 & 2) and Part 2 (years 3 & 4). The Wolfson DoS安排s mandatory small group supervisions where individual specialists assist the Part 1 students in pairs or triples with their coursework examples sheets and revision.
Second Year (Part 1B) Michael Zhu was born in Shanghai, China. I accomplished my one-year A-Level in Ashbourne College in London. Last summer I worked as a mechanical engineer in Morimatsu and I am looking for a computer science related summer internship right now. My personal interest lies on computer network and cryptography while I am also the captain of CSSA football team. Based on my particular interest, I am looking forward to pursuing a master of computer science in United State after my B.A degree in Cambridge.

My name is Ming and I am a second year Engineering undergraduate student. Like all Singaporean males, I have served two years in the army before attending university. My interests lie in mechanics and computing and I am considering specializing in either Mechanical Engineering or Information and Computer Engineering in my third year. Apart from engineering, I am also taking French classes in the department language unit and I will be going for a language exchange trip in Paris this March. In my spare time, I like to do salsa and ballroom dancing and I am a member of the university’s beginner ballroom dance team. I have enjoyed the engineering course and the company of my engineering course mates and supervisors very much and I hope to excel as an engineer through this course.

My name is Erik Rosén. I'm 22 years old, and I was born and raised in Stockholm, the capital of Sweden, with my twin sister and a three year younger brother. Before I started studying at Cambridge, I did 15 months of military service in the navy, followed by 6 months as a sergeant on board a signals intelligence vessel. I'm currently in my second year of the engineering tripos, and I'm considering specializing in electrical/information engineering. I love tinkering with things and coming up with clever solutions to problems, that's why I think the best part about the engineering course at Cambridge is the practical projects. I've especially enjoyed the IDP, the IA structural project and the lego-project, all of which combined design and construction. During my summer vacation, I worked as a verification engineer at the telecommunications company Ericsson. I mainly reviewed mechanical designs and constructions for test hardware used in large-scale production. I also designed a functional library that would help designers in making the design process more iterative. This summer I will be working at Siemens Magnet Technology in Oxford as part of an undergraduate scheme. Besides studying and working, I row for the Wolfson Boatclub and play the guitar!
My name is Xianjie and I am a first year Engineering undergraduate student from Singapore. Before coming to Cambridge, I had to serve 2 years of National Service in Singapore. I am particularly interested in mechanical and materials engineering, and hope to pursue them in the future. My hobbies include outdoor activities such as hiking and cycling. Wolfson College has offered a wonderful, friendly environment to study, have fun and meet people from all around the world.

Hi, I'm Jeffrey from Singapore, and I am currently a third year specialising in Electrical and Information Engineering. I have a fascination for all sorts of engineering applications, especially electrical gadgets, which encouraged me to press on and continue the challenging course which involves analysing obscure circuits and understanding abstract concepts of data processing. Work aside, I was involved in the eco-racing team which builds and maintains a solar car, and I'm currently a committee member of ICUSU, the international students' union. Both experiences were very enriching and meaningful, and most importantly fun! In my free time, which isn't much, I enjoy attending an occasional formal with friends, as well as travelling during the term breaks. I thoroughly enjoyed the Cambridge Engineering experience so far, as it covered a wide range of courses, and the variety of activities and fast pace of work will never leave you bored!

Hey Everyone! My name is Jonathan and I am a first year undergraduate engineer here at Cambridge University. Originally a lifeguard from London I wanted to further my interest in maths and science at an academic institution and the Cambridge engineering course looked perfect. The course covers a huge spectrum of topics which is great and studying alongside the many talented and motivated students here at Cambridge makes the experience even better. I am finding the computing projects very enjoyable and I hope to specialise in software development in the future. I am a big music fan and am currently learning to play the piano in my spare time. My other hobbies include swimming and rock climbing. Cambridge provides its students with endless opportunity to lead a fun and enriching life, and together with the homely environment here at Wolfson College I am looking forward to a very enjoyable four years of study.
Shaun here, I am a third year undergraduate from Singapore studying in beautiful Cambridge, specializing in mechanical engineering. I have an interest for all things mechanical. I love tinkering and creating gadgets since a very young age, often curiously pulling apart and building contraptions and gadgets with things I find around the house. I enjoy adding value to the world and personally find engineering complimentary to my hobbies, particularly mechanical engineering as it brings about a harmonic fusion of many of my favourite pastimes such as design, rapid prototyping, mechatronics, web and software development. I see myself much of a person who like to put ideas and concepts through reality and not just on paper, often realizing new ideas which could improve or even have large positive impact on our lives in the future. I do rock climbing, scuba diving and skydiving for the love of the sport. I am an avid runner and competitive long distance runner too, specialising in athletics, cross-country and long distance events, running distances from 10km to full marathons.

I am Francis Godden from London and currently in my second undergraduate year. I would like to specialise in electronics and software engineering in order to fuel my geeky passion for building things like robots and other cool gadgets. My experience in Cambridge thus far has taught me the importance of developing strong engineering skills over a wide range of disciplines. One of the many reasons why the Cambridge University Engineering department is such a great place for an undergraduate is the fact that the first two years offer such an in depth look at engineering as a whole. I myself have found new passions in engineering areas other than electronics (such as systems engineering and structural mechanics) that I wouldn’t have known existed had I been on a more traditional single discipline course at another university. This does result in an extremely high work load, but the feeling I get from being able to learn from some of the greatest brains on the planet, more than makes up for it! When I’m not studying I like to play the piano, visit the gym and make video games (and play them of course!)

Senior Members – outreach call
Wolfson has a tradition of attracting visitors and senior members and we would like to involve them in The Wolfson Engineer. Who’s doing an engineering doctorate here? Please contact the DoS for Engineering if you have anything to add to our Newsletter. Being new to the job, and Wolfson, he doesn’t know everybody yet – but wants too!
Hey there, my name is Shaun Lim and I come from Singapore. I am currently in my first year of the engineering undergraduate course at Cambridge. What interests me about the undergraduate course here is the broad exposure to the different fields of engineering during the first two years of the course. Even though I intend to specialise in Engineering for the Life Sciences, I feel that the broad exposure will allow me to understand how the different engineering disciplines work together in a system. Also, there are many chances to get involved in research in Cambridge. This is very useful as I intend to pursue a PhD after my undergraduate studies. Cambridge is full of opportunities even outside of academics. During my first term, I rowed in the Boat Club, was involved in the Engineers without Borders and learned some German at the Engineering Department. Being a mature college with an international student body, Wolfson is an excellent place to meet many people with interesting backgrounds.

Hi my name is Shee Han Ng and I’m from Singapore. I am currently in my first year here at Wolfson. A fascination for technology was what motivated me to study engineering. I had the opportunity to do work experience in the software development section of a company back home which sparked my interest in computing and electronics. However, since starting school at Cambridge, the entire course structure and particularly the two years of general engineering has given me a broader view of the subject, and I am eagerly exploring the other fields of engineering. My hobbies include swimming, drama and RC aero modelling.

My name is Aik Khim. I am from tropical Singapore, where it is warm and humid all year round. I am in my first year of the Engineering course, and I enjoy the course because it allows me to understand how things work through the rigorous teaching of engineering theory, and it also gives me the opportunity to try my hand at designing systems. I like Wolfson College for many reasons, amongst them its peaceful setting in Cambridge suburbia and the enormous diversity of peoples on campus. In my free time, I enjoy reading, going for walks in parks, and exploring the natural environment in and around town.
Hi, my name is XIAO Lan, a first year engineer from Chongqing, China. I have a wide range of interests. In terms of academics, I may specialise into Information and Electronics Engineering Branch. On the non-academic side, I enjoy playing badminton. I am in Wolfson Badminton Team with Jerry as well although he plays much better than I do. I am also the International Officer at Wolfson. I consider Wolfson as a conducive to study and living and hope to see you all in October.

Wolfson Supervisors 2012

Second Year (Part 1B) Maths: Linear Algebra. Ioannis S. Mitsos was born and raised in Attica, Greece in 1983. He is a PhD candidate at the department of Engineering at the University of Cambridge and a member of Trinity Hall. He has been a member of the Advanced structures Group at the CUED since October 2009 when he started his PhD studies. In 2005 he received his B.Eng from the Department of Civil Engineering at Portsmouth University where he graduated with a First Class Honours degree and a distinction award from the Institution of Structural Engineers (IstructE). In May 2009 he received his MS with a distinction from the department of Civil Engineering and Engineering Mechanics at Columbia University of NY. From 2009 to present he is conducting research under the Supervision of Dr S.D. Guest, reader in structural mechanics and principal investigator of the advanced structures group. Ioannis’ research interests in structural mechanics are in the field of tensegrity structures and more precisely in planar multi-modular double-layer tensegrity grids. Ioannis investigates the structural behaviour of double layer tensegrity grids both from a theoretical and experimental point of view. He also investigates novel practical techniques for the construction and testing of this type of structures. For his research Ioannis is funded by Alexander Onassis Foundation in Greece and from the Cambridge University European Trust. He is also a member in many Institutions such as IstructE, ICE, ASCE, IASS, EERI, SECED and Cambridge Philosophical Society.

Supervisor for second year (Part 1B) Maths: Statistics. Dr Ronan Daly completed his MEng (Chemical Engineering with European Studies) at the University of Edinburgh. He worked as a Process Technology Manager for Unilever R&D before completing his PhD in Chemistry at the nanoscience centre (CRANN) and School of Chemistry in Trinity College Dublin. Ronan is a CUED Research Associate (2011) in the Inkjet Research Centre, where his Research interests are capillarity, self-organisation and fluid dynamics.
Supervisor for second year (Part 1B) Maths: Vectors. Dr Eleanor (Elly) Betton gained a Masters in Mechanical engineering from the University of Bristol before moving to Cambridge to study for her PhD. In 2011 she obtained her doctorate whilst working with Steve and Kai at the CUED IfM Inkjet Research centre. She now works in research and development for a marking and coding company Domino printing, based in North West Cambridge. Her work involves a combination of mechanical, electrical and software engineering - but she particularly enjoys the software part! In her spare time she enjoys working on her classic Frogeye sprite and playing croquet. She had to leave the Wolfson supervisor team at Christmas 2011 to meet some new overseas company working requirements on inkjet printing projects. We wish her all the best in her future work.

(Part 1) Mechanics: Dr Ajith Kumar Parlikad is a University Lecturer at Cambridge University Engineering Department. He is based at the Institute for Manufacturing (IfM – West Campus), where he is the Deputy Director of the Distributed Information and Automation Laboratory. Ajith currently leads research activities on asset management and maintenance at the Institute, with a specific focus on examining how asset information can effectively managed and used to improve asset investment and maintenance decision-making. He currently runs two research projects - one funded by the IMRC on information management strategies, and the other funded by the EPSRC on information quality in asset-intensive organisations - in addition to a number of student projects in this area. Ajith is a member of Institution of Engineering and Technology (IET), Institute of Asset Management (IAM), a core partner of the International Working Group on "Maintenance for Sustainable Manufacturing (M4SM)", and member of the IFAC Working Group on "Advanced Maintenance Engineering, Services and Technology". Ajith joined Cambridge University to read for his PhD degree, which he successfully completed in August 2006. For his PhD, he developed a methodology for quantifying the benefits of improving product information availability and quality on the effectiveness of product recovery processes. Ajith has also been involved in consulting to logistics companies on RFID. Before coming to Cambridge, Ajith obtained his bachelors degree in Mechanical Engineering with Honours from Govt. Engineering College, Trichur. After working with Steel Industries Kerala Ltd.(SILK) for a couple of months, he did his Masters in Industrial Production & Management at Birla Institute of Technology & Science, Pilani. During the same period, he also worked as an Industrial Engineer at Grasim Industries, which is one of the leading textiles manufacturer in India. He then completed his second Masters in Industrial Engineering at North Carolina State University. During this period he worked on projects with Nortel Networks and IBM eServer manufacturing facilities in Raleigh, NC, USA.
(Part 1) Electrical topics and First year (Part 1A)
dimensional analysis, physical basis of
electronics; Director of Studies in Engineering.

Dr Stephen (Steve) Hoath is a chartered
physicist, engineer and scientist with extensive
experience in a range of roles including industrial
R&D, international technical product support,
customer and sales training, project management
and client marketing world-wide. A BA and DPhil
at Lincoln College, Oxford, were followed by RA
posts at Rutherford Laboratory and a Lectureship
in Physics at the University of Birmingham (1979-
1986). Steve was appointed Research Associate
(2005) to the CUED Inkjet Research Centre to
combine measurement work, modeling and
computational studies on inks and fluids, funded by EPSRC and a UK company
consortium. His photograph of ink droplets entitled "Tales from the nozzle bank" was
the winner of the Engineering Department's photography competition (2006). He is a
past Badminton England Level 2 qualified Badminton Coach and local Rambler.

Supervisor for second year (Part 1B) Materials

Dr Claire Barlow specialises in materials engineering. Her
research work has covered a wide range of materials and
processes, with a particular interest in inter-relationships
between processing parameters, mechanical properties
and material microstructures, and sustainable and eco-
efficient manufacturing. Claire is DoS for MET at Newnham
and was the previous Director of Studies for Engineering
at Wolfson; she is the next Director of Undergraduate
Education for CUED this summer.

First year (Part 1A) thermodynamics and materials
courses Dr Wen-Kai (Kai) Hsiao studied Mechanical
Engineering with a B.S. from University of California,
Santa Barbara and both M.S. and Ph.D. from
Massachusetts Institute of Technology. After obtaining
his doctoral degree in 2004, he worked briefly in MIT
Media Lab developing an interactive digital media table
(TView) before joining Alvatec, a start-up company in
Austria specialising in processing alkali metal alloys for
vacuum vapour source and insulation getter applications.
He joined the Inkjet Research Centre in April 2007 to
study the dynamic deposition behaviour of picoliter sized
ink drops on surfaces, with aim to help developing a new generation of inkjet-based
digital manufacturing processes. Research interests: impact, coalescing, and mixing
of inkjet deposited drops on surfaces; integration of product innovation and
manufacturing process development. Kai was appointed in 2010 as an Associate
Lecturer in Engineering for Newnham, and supervises for Wolfson too.
Supervisor for First years (Part 1A) structures
Mr. Evros Loukaides is a third-year research student at the Engineering Department, and a member of Girton College. He completed his undergraduate work at MIT, obtaining a BS in Civil Engineering and a minor in Mathematics. He has an MS from Columbia University, also in Civil Engineering. As a member of the Advanced Structures Group, he studies morphing structures, and more specifically, multistable shells.

First year (Part 1A) Maths supervisor Dr Matthew Bray is an alumnus of Gonville and Caius College where he completed a PhD in Laser-Assisted Cold Spray at the Centre for Industrial Photonics. He currently works as a consulting engineer for Breathing Buildings, a spin-out company from Cambridge University’s BP Institute for Multiphase Flow. He captained Cambridge University’s Rugby League team to victory in the 2009 varsity match and tells everybody at every opportunity. He has had to leave the team due to his company’s frequent working trips in the USA now planned during the Lent term. We wish him all the best in his future work.

First year (Part 1A) supervisor for computing and electromagnetics
My name is Haider Al-Taie. I am a first year PhD student in the Department of Engineering and a Visitor to the Cavendish Laboratory, Department of Physics. I am from the UK but grew up in Vienna, Austria and my interests lie in Quantum Electronics and programming on CPUs and GPUs. After graduating from the University of Nottingham, I decided to pursue a PhD in Electronic Engineering at the University of Cambridge. My hopes and aims for the future are that I finish my PhD in 3 years time.

Mr Garfield Guan, second year (Part 1B) supervisor for structures writes:
I am Garfield Guan, a third-year PhD student in the Structures Group CUED, researching reinforced concrete structures. I am from Canton China, studied once at Sun Yat-sen University, and got my B.A. degree from University of Hong Kong in civil engineering. I would probably join the Hong Kong civil engineering industry after my PhD, and hope to be able to meet some of your guys there.
Supervisor for second year (Part 1B) linear control: Sithamparanathan Sabesan was born in Jaffna, Sri Lanka, in 1984. Dr. Sabesan moved to the UK in 2004 to study BEng (Hons) Electronic Engineering at Sheffield University, where he scored highest marks in his year and awarded the Sir William Siemens Medal for being the country's top 18 science and technology students. He was previously with the Cambridge University spin off company ARM, as a student IP Electronic Engineer. He moved to Corpus Christi College, Cambridge University in 2007 to study for his Masters degree (MPhil) in Electronic Engineering before beginning his PhD in 2008 on the subject of 'Passive RFID real time sensing system for intelligent infrastructure'. He received funding from the Cambridge Commonwealth Trust, Corpus Christi College Scholarship and EPSRC (TINA and Boeing) Studentship to pursue MPhil and PhD at Cambridge University. He has received a number of awards, has had his work published in various journals and currently has two patents pending for his work into RFID. A keen cricketer, Dr. Sabesan has captained the Corpus Christi College MCR team and is also an elected president of University of Cambridge Graduate Cricket League and chairman of Institution of Engineering and Technology (IET) Cambridge Younger Professionals Committee. Dr. Sabesan has just been elected to a Junior Research Fellowship at Girton College, Cambridge University and has recently been selected as the winner of The UK EPSRC ICT Pioneers Connected World Award, as well as the The Royal Academy of Engineering ERA Foundation Entrepreneurs Award 2011.

Dr Timos Kipouros supervises second year (Part 1B) thermodynamics. Timos joined the Engineering Design Centre (EDC) in October 2002 after obtaining a Diploma in Mechanical and Aeronautical Engineering from the University of Patras, Greece. Timos delivered his PhD in the EDC, under the supervision of Dr Geoff Parks and Professor Mark Savill, focusing on the Aerodynamic Design Optimisation of turbomachinery blades from multi-objective perspective. His PhD in Engineering (Multi-objective Aerodynamic Design Optimisation), Cambridge University, 2006. The Aerodynamic Design and the Optimisation was accomplished using detailed CFD codes, adaptive geometry representations and heuristic optimisation algorithms.

Timos is currently working on the development of High Performance Computing Distributed Design Optimisation Systems and Architectures for industrial applications. He maintains active links and collaboration with leading parties in the field, such as Airbus, Siemens, Rolls Royce, Nordex. Timos is a Bye-Fellow at Homerton College, where he teaches Part IA and IB Engineers in Structural Mechanics, Materials and Thermofluid Mechanics. He is also a senior member of Staff in Cranfield University, where as a Visiting Research Fellow he is the leading researcher and co-supervisor of MSc, PhD and EngD projects in the Power & Propulsion Sciences Group, Department of Power and Propulsion, School of Engineering, Cranfield University.
Supervisor for first year (Part 1A) Maths (taking over from Dr Matthew Bray):
Mr Malcolm Morgan wrote I am a 1st year PhD student in the Centre for Sustainable Development, before which I did a Masters of Civil Engineering at Warwick.

Supervisors for Wolfson

The Wolfson Part 1 supervisors during the current academic year have included
Part 1A (1st year): Dr Ajith Parlikad (mechanics), Dr Evros Loukaides (structures), Mr Haider Al-tai (computing, electromagnetics), Dr Wen-Kai Hsiao (materials, thermodynamics), Mr Malcolm Morgan (maths, L), Dr Matthew Bray (maths, M) and Dr Steve Hoath (dimensional analysis, physical basis of electronics, linear circuits);
Part 1B (2nd year): Dr Ajith Parlikad (mechanics); Dr Claire Barlow (materials); Dr Eleanor Betton (vectors), Dr Ronan Daly (statistics), Mr Garfield Guan (structures), Mr Ioannis Mitsos (linear algebra), Dr Steve Hoath (electrical), Dr Sithamparanathan Sabesan (linear systems & control) and Dr Timos Kipouros (thermodynamics).

Undergraduate Students

Part 2A:
(Shaun) Shing Ji Chng, Jeffrey Lee and Jerry Thia
Part 1B:
Ke Chen, Ming Qing Foo, Francis Godden, Erik Rosén, (Michael) Zhouyo Zhu
Part 1A:
Jonathan Godden, (David) Xiao Lan, (Shaun) Sze-Xian Lim, Luke Shee Han Ng, Aik Khim Tan, Xian Jie Tay

Prospective Wolfson Student Offers (@ January 2012)
2012: 4 + 1 (Chemical Engineering via Engineering)
2013: (for deferred entry) 3

Prizes and Achievements

Wolfson engineering students have generally performed well in the Tripos exams: Jennings Prizes for getting a First in exams:
Jeffrey Lee and Jerry Thia (in Part 1B); Ming Qing Foo and Eric Rosén (in Part 1A).

Lee Library: are there any books or resources needed by the engineers at Wolfson?

Michaelmas 2011 saw Francis Godden in the winning Robot project team (Part1B). This mixed gender (3+3) team included students from Kings, Newnham & Wolfson.

Wolfson undergraduate Erik Rosén has been awarded a competitive scholarship by the Siemens MR Magnet Technology Undergraduate Support Programme for the next three years of his Engineering Degree. Erik, aged 22, from Sweden, is in his first year reading for the Engineering Tripos, and was one of 17 nominees from Cambridge colleges for the award. At the first round, held at Fitzwilliam College, candidates were asked to present to a panel of judges comprising representatives from the Siemens MR Magnet Technology and Industry branches, and Prof. David Cardwell, Professor of Superconducting Engineering at the University of Cambridge.
The Wolfson Engineer – Lent 2012

Erik’s talk on thin film transistor displays ensured his progression to the second selection round, held at the Siemens Magnet Technology facility in Oxfordshire. The selectors commented on his excellent interview performance, which demonstrated maturity, self-awareness and knowledge of effective team-working, and highlighted the clear personal interest that informed his presentation. In addition to financial support for the next three years, the scholarship will provide Erik with a 6-week industrial placement at Siemens MR Magnet Technology after parts IB and IIA of the Tripos, and the opportunity to undertake a fourth-year project at the Oxfordshire unit. Siemens is a leading global engineering firm with offices and factories throughout the UK and around the world. [Anna Jones].

Events
Should we have a formal dinner with a group photograph taken during Lent Term??
Formal Hall Engineers Friday 4th May 2012 ALL IN SUPPORT!
Wolfson Science Society Friday 9th March 2012 Dr Ivor Day (Whittle)
Friday 18th May 2012 Prof Ian Hutchings (IfM)

Movers & Shakers
Congratulations to Dr Claire Barlow (Newnham), who was previously external DoS @ Wolfson, for becoming (January) CUED’s next Director of Undergraduate Studies.

Director of Studies (Undergraduates)
Everyone at Wolfson, a mature college, is of course 21 years or older before starting. The DoS meets with all students individually at the beginning and end of each Term, starting each year with some formal notices and pairing up students for supervisions. Morrison House office number 2 is shared with a Wolfson Tutor for DoS meetings.

My thanks to the three DoS @ Newnham for their great help and encouragement: Dr Claire Barlow, Dr Alice Moncaster (Design Centre) Dr Luis Garcia-Gancedo (CAPE). In addition, thanks to all the current students and staff at Wolfson for their welcome, and for helping Shaun Chng after he broke his leg during the 1st week of Michaelmas. Shaun’s Tutor, Mrs Anna Jones, gained College financial support towards CUED taxi.

Gallery
In lieu my RA time spent compiling this first Newsletter I thought I should include my winning research entry on ink-jet “Tails from the nozzle bank” at the 2006 CUED photography competition! However the Newsletter is really about people – Steve Hoath.