

DEPARTMENT OF ELECTRONIC ENGINEERING

APPENDIX TO THE MPHIL/PHD DEGREE STUDENT HANDBOOK 2023/24

This appendix should be read in conjunction with the core MPhil/PhD student handbook

The Department of Electronic Engineering sits within the School of Engineering, Physical and Mathematical Sciences (EPMS) which covers the following disciplines: Computer Science, Electronic Engineering, Mathematics, Information Security and Physics.

Welcome to your School

Congratulations on getting a place to join our School of Engineering, Physical and Mathematical Sciences. We are delighted to welcome you and hope you will have a very successful, productive and enjoyable time with us.

You will find support in your studies not only from your immediate supervisory team but also from the PGR Lead in your home department – Dr Shyqyri Haxha (Electronic Engineering), Dr Andrew Ho (Physics), Professor Pat O'Mahony (Mathematics), Dr Elizabeth Quaglia/Dr Andrew Dwyer (ISG) and Professor Chris Watkins (Computer Science) – and from the Doctoral School.

Dr Rikke Bjerg Jensen, Director of PGR Education for the School of EPMS

Key contacts

Role	Name	Email	Phone	Room
Executive Dean	Professor Gavin Shaddick	Gavin.Shaddick@rhul.ac.uk	01784 414161	LB1-22 - Bedford
Head of Department	Dr Steve Alty	steve.alty@rhul.ac.uk	01784 276256	Shilling
School Director of PGR Education	Dr Rikke Jensen	Rikke.Jensen@rhul.ac.uk	01784 276549	Bedford 2-04
Department PGR Lead	Dr Shyqyri Haxha	Shyqyri.Haxha@rhul.ac.uk	01784 443183	Shilling
School helpdesk*		EPMS-school@rhul.ac.uk	01784 276881	Bedford o-37

^{*} For the majority of your non-academic related issues, please contact the <u>Doctoral School</u>. However, for queries about teaching contracts, expenses and study space within the school, please contact the School of EPMS helpdesk.

Staff

All academic staff are based on the 2nd floor of the Shilling Building - top of the main stairs, through the double doors, the main office door is on your right.

Staff list within the Department of Electronic Engineering

Technicians' office/ technical team

The technician's room can be found on the 1st floor between the Fab Lab and the Teaching Lab. It is best accessed through the teaching lab providing no class is in operation.

Lisa Fell	Technical Operations Manager	01784 41(4004)
Alex Clarke	Lead Technician	01784 44(3852)
Dave Chapman	Technician	01784 27(6048)
Stefan Williams	Technician	01784 41(4059)

Your department's key staff roles

Day-to-day administration of the MPhil, PhD and Masters by Research Programmes are carried out primarily by the <u>Doctoral School</u> and the PGR Lead.

- Academic staff are usually full-time and include teaching fellows, lecturers, senior lecturers, readers and professors. Staff teach, supervise and also conduct their own research.
- Your principal supervisor bares the major responsibility for providing advice and support to
 you on the conduct of your work, however, the independent research will normally be
 carried out by you alone. The supervisor is an important resource and is there to offer
 guidance, ask relevant questions and suggest lines of enquiry but not to provide answers to
 major research questions.
- Your advisor will be an additional source of academic and pastoral support.
- The PGR Lead is responsible for the welfare and academic progress of all the department's research students. They are also responsible for appointing your advisor. They can give advice and guidance, in strict confidence, to assist in resolving any difficulties where a breakdown of relations between a supervisor and their student has occurred and, in other circumstances, where a change of supervisor is desirable and, where necessary, to arrange the appointment of a replacement supervisor. They will also be required to attend your Annual Review meetings and your Upgrade meeting, as a member of staff completely independent of your supervisory team.
- The Head of Department has the ultimate responsibility for all the activities within the
 department. They are responsible for dealing with any disciplinary matters, appeals or
 complaints that have not been successfully addressed by the appropriate procedures
- The Technical Operations Manager is the head of the departmental technical team. They are responsible for the day-to-day running of the laboratories and overseeing the technicians. They are also responsible for Health and Safety within the department and all maintenance issues should be reported to them.

Research areas

Staff research interests within the Department of Electronic Engineering

Research within the Department is structured into **four main groups**:

- Microwave Photonics and Sensors
- Audio, Biosignals and Machine Learning
- Nano-Electronics and Materials
- Power Systems

These groups provide a lively and interactive environment for postgraduates and academic staff. Each group meets frequently and arranges regular seminars and talks with internal and external speakers. These groups also serve as a useful forum for discussing current research activities, formulating ideas, sharing resources, discussing journal articles and problem solving. You will be expected to become active members of your relevant research group and are also expected to participate in wider departmental events such as seminars and colloquia.

Staff-Student Action Meeting

There is an EPMS School Staff-Student Action Meeting which is made up of student representatives from all five departments in addition to the PGR staff leads in each department. This meeting, which meets three times a year, allows students to raise any issues for discussion which they feel are having an impact on their studies, and to provide feedback on the provision for PGR students.

Facilities and resources

The Department of Electronic Engineering has a number of labs/rooms, on all three floors the Shilling Building. These are available for use by Electronic Engineering students only. We ask that all students respect these spaces and always leave them clean and tidy and as they found them.

The **Creative Thinking room** is your space to use at any time unless there is a scheduled class in there. Normally this room can be used for both quiet study and for group work. However users should be mindful of other users and try to keep noise to a minimum, if possible. Students are asked to look after this room and keep it looking nice. Seating should be returned to their original place after use. The room is accessible by your Student ID card but is not open 24 hours a day. Opening hours vary and you will be advised of changes.

No food or drink is allowed in the Creative Thinking room (or the labs) except bottled water.

The **Shilling Building** has **two teaching labs** where formal practical laboratory sessions are taught. These contain the kind of sophisticated test equipment that students will come across in industry. The teaching labs are accessible to students via their Student ID card during their class times. Please ensure a member of the technical team had been informed of your presence and that you have read the Health and Safety handbook.

The **Fab Lab** (Fabrication Laboratory) will be available to students during project work and will be opened as required. This room has 3D printers, PCB engravers, surface mount equipment, laser cutter, pillar drill, robotics table and general-purpose fabricating equipment.

Masters by Research will be given access (subject to Covid restrictions) to a hot desk within the Academic Office space. Whilst working in there you must behave professionally and refrain from excessive noise in the open plan environment.

Health and Safety

The Departmental Health and Safety co-ordinator oversees health and safety procedures in the department. There are rules and regulations that are specific to particular departmental activities, and every person who is working in or visiting these areas must make sure that they are acquainted with these regulations. Ignoring such provisions means not only putting yourself at risk, but also those around you.

The department is committed to providing a healthy and safe environment for staff and students to work in. Risk assessment is an ongoing part of departmental activity, to ensure that all procedures, modules (including projects), laboratory experiments, fabrication laboratory work and field trips are implemented with the minimum risk to all concerned.

Safety is everyone's responsibility. Any health and safety concerns should be brought to the attention of the department's Technical Operations Manager or the Unviersity Health and Safety Office.

You are issued with a Health and Safety Handbook in the first week of each new academic year and a copy will also be posted on the Postgraduate Research Student Information page in Moodle. It is important to read this even if you are a returning student.

Emergencies

First aid

First aid kits are situated in the Shilling Building as follows:

- main office space, 2nd Floor, kitchenette area;
- 1st Year teaching Lab (1-06), 1st Floor;
- Fab Lab (1-04), 1st Floor; and
- 2nd Year teaching lab (0-05), ground Floor.
- MPS lab 1-08 (1st floor)

If you are in any other University building, you will find signs up telling you where to find the nearest first aider.

If you suffer an injury, or find someone injured, call a qualified First Aider. A list of First Aiders is posted:

- in each laboratory by the 1st aid kit
- on the door of each lecture room leading to a corridor; and
- on the Electronic Engineering Student Information Moodle page.

If you cannot contact one of the First Aiders you should contact security on 01784 44 3063 or emergency 444 (internal).

Fire marshal

The following staff member acts as Fire Marshals:

Lisa Fell	Shilling Admin Office	01784 41 (4004)
Alex Clarke	Technicians room	01784 44(3852)

You are strongly advised to enter all the numbers shown above into your mobile phone

Departmental smoking policy

In line with British Law, there is no smoking allowed in any of the Electronic Engineering Department buildings. Smoking is only allowed in designated areas which are a minimum of 5 meters away from the building. It is the responsibility of the smoker to ensure that smoke does not enter any building.

For more information on the University's smoking policy and procedure, click here.

• Children and young persons on campus

Children and young persons are only allowed on the campus if accompanied by a responsible adult and must remain with the adult at all times during their stay on the premises.

New and expectant mothers

New and expectant mothers are advised to consult the Technical Operations Manager at the earliest opportunity. Once written notification has been received by the Technical Operations Manager, a pregnancy risk assessment will be performed. Advice on health and safety can be obtained from the <u>Student Wellbeing</u> team.

Lone working policy and procedures

The principles and guidance around lone working are often highly applicable to the nature of postgraduate research and the variety of activities this might involve. As such, awareness and planning around any lone working you may be required to undertake are essential.

Lone working is defined as working during either normal working hours at an isolated location within the normal workplace or when working outside of normal hours. The department and the type of work conducted by students is classified as fairly low risk activity and as such the following advice is relevant. The exception to this is the Photonics Lab which should only be accessed by those who are fully trained in the use of the lasers within it.

Any health and safety concerns should be brought to the attention of the Departmental Health and Safety Coordinator <u>Lisa Fell</u> or the University Health and Safety Office. It is likely that most activities will take place on University premises. However, the principles also apply to students undertaking duties off campus.

MPhil and PhD in Electronic Engineering

The PhD (Doctor of Philosophy) degree is a four-year full-time or eight-year part-time programme of research on a topic that is linked to one of the department's research groups under the supervision of one of our academic staff who is a specialist in the research field.

The core one-word requirement of a PhD is 'novelty'; there has to be something within a PhD that can be deemed to be novel. This has to be demonstrated by reviewing the research literature mainly during the first 9 months or so to establish a specific area of interest where there is scope for moving knowledge forwards. Then some way of exploring that area formally is established, usually through experimentation, and this phase lasts generally into the third year. The writing of the thesis will usually start during the last 3-6 months of the third year.

The MPhil (Master of Philosophy) degree is a three-year full-time or six-year part-time programme of research on a topic that is linked to one of the department's research groups under the supervision of one of our academic staff who is a specialist in the research field. It differs from the PhD (see above) in that there is no expectation of 'novelty'. Rather, the MPhil degree is based around excellent research that furthers knowledge but that additional knowledge does not have to be novel. This has to be demonstrated by reviewing the research literature mainly during the first 6 months or so to establish a specific area of interest where there is scope for moving knowledge forwards. Then some way of exploring that area formally is established, usually through experimentation, and this phase lasts generally well into the second year. The writing of the thesis generally starts during the last 3-6 months of the second year.

Advice is available to guide on the writing of your thesis from your supervisor or the Academic Writing module on the University's Researcher Development Programme. Full guidance on what is expected of a thesis can be found in the Research Degree Regulations. You must make yourself familiar with these before starting to prepare your thesis. If in doubt, please bring up any questions or issues you might have with your supervisor during a supervision session.

Annual reviews and upgrades

Although you will meet with your supervisor regularly during the academic year, your academic progress is formally reviewed at least once every twelve months, regardless of whether you are studying full or part time.

- Core annual review details
- Annual reviews in the Department of Electronic Engineering

All MPhil / PhD students start their programme on the MPhil and have to pass the upgrade review meeting in order to be eligible to submit for the PhD.

- Core upgrade details
- Upgrades in the Department of Electronic Engineering

Preparing for your viva

The viva voce examination can be a stressful event and the time running up to it can also cause anxiety. Your supervisor will be able to guide you on what to expect and how to approach the viva; there are one or two techniques that can help you if you feel nervous or uncertain about the process. Bear in mind that your examiners may also feel anxious and be keen to set up a rapport with you that enables the conversation, for that is really what the viva is. The examiners are there

to assess your contribution to knowledge, the novelty (if it is a PhD viva), your understanding of the subject and the research work you have carried out.

Note from the Head of Department "when I act as an examiner I am very aware that I am being asked to evaluate 3 - 4 years' work by reading a Thesis and conducting a Viva in a few hours and I am very conscious about giving candidates space to become themselves in answering questions about their research. The viva is not about your 'performance', rather it is about offering the chance for you to show off your research and its novelty in its best light".