



# THE 10TH ANNUAL SICSA PHD CONFERENCE

**sicsa\***

The Scottish Informatics &  
Computer Science Alliance



# WELCOME AND INTRODUCTION



On behalf of SICSA and the Conference Organising Committee, I would like to welcome you to the 10th Annual SICSA PhD Conference at Robert Gordon University, Aberdeen. I would like to thank all of those that have been involved in organising the conference this year, with particular thanks to the conference committee and also to Steven Kendrick and Aileen Orr (SICSA Executive Team) who have went above and beyond to make sure that this year's conference is the best one yet!

Computing is a discipline that is ever evolving and now, more than ever, it is important for our sub- disciplines to work together in order to change the world. The work that we can do together really is more than the sum of its parts, so I encourage you to go and meet new people at this year's conference and see how you could collaborate in the future. I hope that you enjoy your time in Aberdeen over the next few days and have fun during the conference.

Dr Michael Crabb  
SICSA Conference Chair, 2018.

# CONFERENCE SCHEDULE

TIME (DAY 1)	SESSION	LOCATION
09:00 - 09:30	Registration and Refreshments	
09:30 - 10:00	Conference Opening	Lecture Theatre (N242)
10:00 - 11:30	<b>Workshop:</b> Student Wellbeing <b>Workshop:</b> Career in Academia <b>Workshop:</b> Web Accessibility	N309 N311 N528
11:30 - 12:30	Refreshments and Lunch	Café Area
12:30 - 13:30	Poster Session	Main Atrium
13:30 - 14:30	<b>Keynote:</b> Bill Buchanan	Lecture Theatre (N242)
14:30 - 15:00	Tea/Coffee	Café Area
15:00 - 16:30	<b>Workshop:</b> How to do a Systematic Review <b>Workshop:</b> PhD Hackathon (I)	Lecture Theatre (N117) N309
16:30	Coaches From Conference Venue to Accommodation	
18:45 - 19:00	Coaches from Accommodation to Trinity Hall	
19:00 - 22:00	Social Evening Dinner	Trinity Hall

# DAY 2

TIME (DAY 2)	SESSION	LOCATION
09:00 - 09:30	Arrival and refreshments	
09:30 - 09:45	Day 2 Opening	Lecture Theatre (N242)
	<b>Workshop:</b> Demistifying the PhD Thesis	Lecture Theatre (N242)
09:45 - 11:15	<b>Workshop:</b> PhD Hackathon (II)	N528 (Lab)
11:15 - 11:45	Poster Session	Main Atrium
11:45 - 12:45	Lunch	Café Area
	<b>Workshop:</b> 5 Statistical Mistakes .....	Lecture Theatre (117)
12:45 - 14:15	<b>Workshop:</b> Your PhD - What's Next?	N311
14:15 - 15:15	<b>Keynote:</b> Andrew Richards	Lecture Theatre (N242)
15:15 - 15:45	Poster Awards and Close	Lecture Theatre (N242)

# COMMITTEE

<b>Michael Crabb</b>	University of Dundee	Conference Chair
<b>Jeremy Singer</b>	University of Glasgow	SGA Director
<b>Steven Kendrick</b>	University of Glasgow	SICSA Executive Officer
<b>Aileen Orr</b>	University of Glasgow	SICSA Executive Assistant
<b>Yasir Alguwaifli</b>	University of St Andrews	Poster Session Lead Coordinator
<b>Simone Barocco</b>	University of Strathclyde	Poster Session & Workshop Coordinator
<b>Ana Ciocarlan</b>	University of Aberdeen	Poster Session & Workshop Coordinator
<b>Mateusz Dubiel</b>	University of Strathclyde	Workshop Coordinator
<b>Andrew Gozillon</b>	University of the West of Scotland	Communications Coordinator
<b>Gibrail Islam</b>	University of Glasgow	Poster Session & Workshop Coordinator
<b>Kyle Martin</b>	Robert Gordon University	Social Activities & Workshop Coordinator
<b>Kehinde Oluwatoyin Babaagba</b>	Edinburgh Napier University	Workshop Coordinator
<b>Ana-Maria Salai</b>	Heriot-Watt University	Workshop Coordinator
<b>Marwa Salayma</b>	Edinburgh Napier University	Workshop Coordinator
<b>Lovisa Sundin</b>	University of Glasgow	Workshop & Social Activities Coordinator
<b>Sarah Thomson</b>	University of Stirling	Communications, Social Activities & Poster

# TRAVEL TO CONFERENCE

We encourage delegates to travel to Aberdeen by public transport, where possible. Both buses and trains run frequently to and from the major Scottish cities, and many towns. Trains (run by ScotRail) from Glasgow and Edinburgh both run hourly, at 41 minutes past and 30 minutes past, respectively. Both Glasgow and Edinburgh trains take approximately 2 and a half hours to get to Aberdeen. Trains depart from Dundee roughly every 40 minutes and take just over an hour. A few direct buses (run by Scottish CityLink) run between Aberdeen and Edinburgh every day and take three hours. There are more options with one or more changes. From Glasgow, direct buses to Aberdeen depart at least hourly.

For more information on public transport and full timetables, visit the ScotRail or Scottish CityLink web sites. The traveline web site (<http://www.traveline.info>) also provides options for planning your journey.

# WATER AT CONFERENCE

We are striving to reduce our impact on the planet and our use of plastics. Therefore, at this year's conference all delegates will be provided with an eco-friendly bottle at registration. This can be filled from any of the water coolers placed around the conference venue. We encourage all delegates to take their bottles away and reuse them in place of plastic bottles

# KEYNOTE

DR ANDREW RICHARDS



## BRINGING SAFE AI TO SILICON

Andrew started his career writing video games, in the days of 8-bit computers, progressing to become a lead games programmer at Eutechnyx, where he wrote best-selling titles such as Pete Sampras Tennis and Total Drivin'. Andrew researched and developed compiler technology, and founded Codeplay in 2002. Codeplay have been producing compilers for games consoles, special-purpose processors and GPUs since then. As well as being CEO and Founder of Codeplay Software Ltd, Andrew is also the Chair of the Software working group of the HSA Foundation and former Chair of

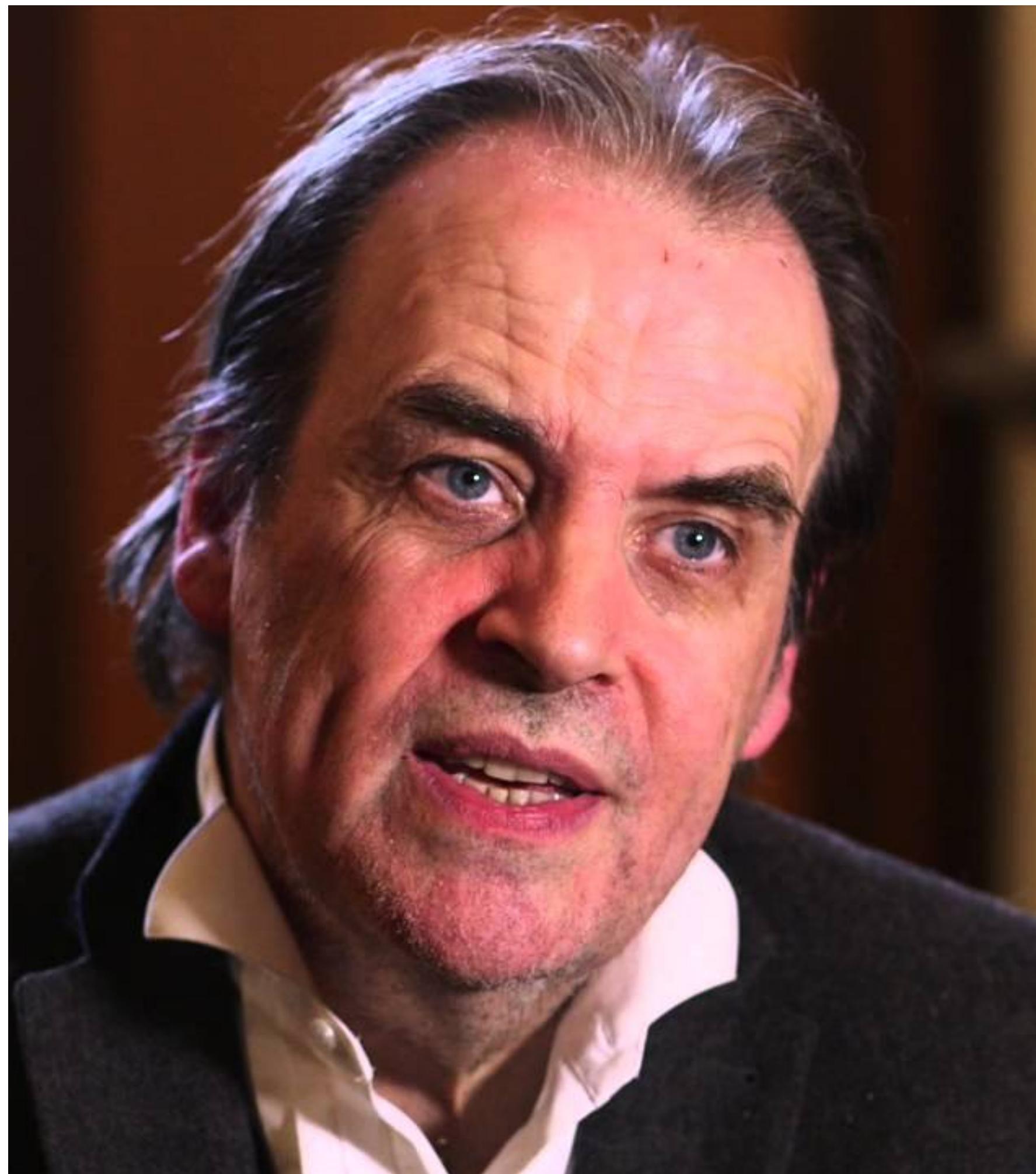
the SYCL™ for OpenCL™ sub-group of the Khronos Group. Today, Codeplay is a world-leading specialist in heterogeneous computing technology, working on AI and self-driving cars.

## KEYNOTE ABSTRACT

How do you get AI software from the lab into real products like smartphones and self-driving cars? Andrew Richards, CEO and founder of Codeplay, will present how his Edinburgh-based company produces the tools to enable AI to be put into production. There are a range of challenges and opportunities in turning AI experiments into products that are safe enough to drive a car, or low-power enough to run on a battery. Codeplay was an early pioneer of GPU acceleration and recently raised a multi-million pound investment from a consortium including Williams Advanced Engineering (the consultancy arm of the racing team) to take on the challenge of making AI acceleration safe.

# KEYNOTE

## PROF BILL BUCHANAN OBE



### TOWARDS A NEW WORLD: CREATING A WORLD FIT FOR THE 21ST CENTURY

Bill Buchanan is a Professor in the School of Computing at Edinburgh Napier University, and a Fellow of the BCS and the IET. He was appointed an OBE in 2017. He has also published over 270 academic papers and 28 academic books. Bill regularly appears on TV and radio related to computer security, and has given evidence to both the UK and Scottish parliaments. He has been named as one of the Top 100 people for Technology in Scotland for every year since 2012, and was also

included in the FutureScot "Top 50 Scottish Tech People Who Are Changing The World". Recently his work on Secret Shares received "Innovation of the Year" at the Scottish Knowledge Exchange Awards, for a research project which involves splitting data into secret shares, and can then be distributed across a public Cloud-based infrastructure. He was also included in the JISC Top 50 Higher Education Social Media Influencers and has one of the most extensive Web sites for computer security education ([asecuritysite.com](http://asecuritysite.com)).

### KEYNOTE ABSTRACT

The Internet that we have created differs little from the one that was created over 40 years. In places we have "sticking plasters" in order to overcome problems, but major risks exist for the long-term scalability of the Internet. Along with this we can trust very few things on the Internet, especially around electronic mail, and even in the Web sites that we visit. Our Internet is thus perhaps fit for the 20th Century, and needs to move itself into the 21st Century. At the core of this will be the integration of trust into every single transaction, improvements in the linkage between human and digital trust; and a stronger understanding of identity. This presentation will thus outline how we need to move our current systems towards a citizen-focused approach, and how cryptography can build a new and more trusted world. Only when we get to this point, can we scale into the future. Along the way, Bill will outline some of the risks that we face, especially in terms of resilience, and highlight some poor examples of security, especially as we move into a world which will be dominated by IoT. In conclusion he will show that if we can build a more trustworthy foundation, we can create new public sector infrastructures, especially in areas such as health and wellbeing.

# YOUR CAREER IN ACADEMIA

## — BALANCING TEACHING AND RESEARCH

DR MARTIN HALVEY,  
DR CRAIG MACDONALD &  
PROFESSOR ALESSANDRO VINCIARELLI  
WORKSHOP COORDINATORS: MATEUSZ DUBIEL



PROFESSIONAL AND  
CAREER DEVELOPMENT &  
COMMUNICATION AND  
DISSEMINATION

Are you considering becoming an academic teacher? Are you passionate about your subject yet concerned about managing your teaching workload and finding enough time for research? If you replied yes to any of the above questions, then this workshop is for you.

During the workshop, we will cover: Preparing lecture material - how to keep students engaged; keeping balance between teaching and research; and time-management advice from experienced academic teachers.

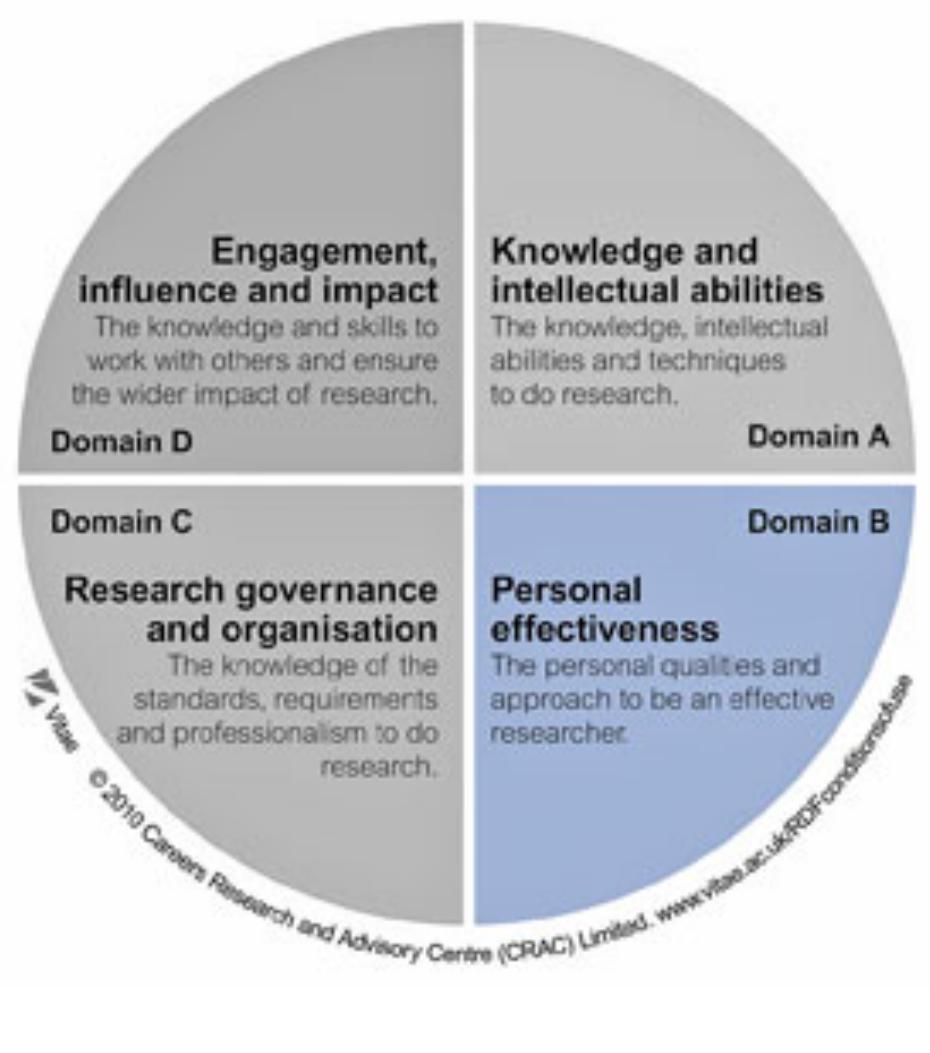
**Part 1 (15 minutes):** How to prepare a good lecture

**Part 2 (15 minutes):** How to efficiently handle teaching workload

**Part 3 (15 minutes):** How to organise your research/ publishing activities

**Part 4 (30 minutes):** Q & A Session

If you have any questions to our facilitators regarding teaching and/or research activities please email them to: [mateusz.dubiel@strath.ac.uk](mailto:mateusz.dubiel@strath.ac.uk).



PERSONAL  
EFFECTIVENESS

# STUDENT WELLBEING: MANAGING YOUR PHD JOURNEY

DR DIANE PENNINGTON

WORKSHOP COORDINATORS: ANA CIOCARLAN & KEHINDE BABAAGBA

It's very easy to overlook the most important part of doing a PhD: YOU! PhD students often struggle with a wide range of challenges that can affect their wellbeing. Meeting deadlines, balancing research against other life commitments, building relationships and adjusting to a new environment are just some of the difficulties experienced by students during their degree. By looking after your wellbeing, you will be better equipped to overcome any challenges, you will be more productive and you will fully enjoy your time as a PhD student. In this interactive workshop we discuss ways to help you manage your wellbeing during your PhD Journey and we will learn from the experience of those who have successfully completed their research degree.

**Part 1 (15 minutes):** Introduction to the session. Participants will be asked a few questions which will guide them through the workshop.

**Part 2 (45 minutes):** We will have a speaker who will tell us how to look after our wellbeing during a PhD and how to manage stressors in order to have a successful PhD.

**Part 3 (30 minutes):** We will have an interactive question and answer session where previous PhD students and researchers get to share their experiences.

Prior to this workshop, it will be useful if participants can write out some of the goals they hope to achieve before the end of their PhD. Also, this workshop involves pure honesty to make the best of the sessions. It is advisable that when answering all questions asked particularly in the introductory session, the participants are as honest as possible. It is important to note that while the session might benefit any PhD student, it is particularly suited for early stage PhD students.

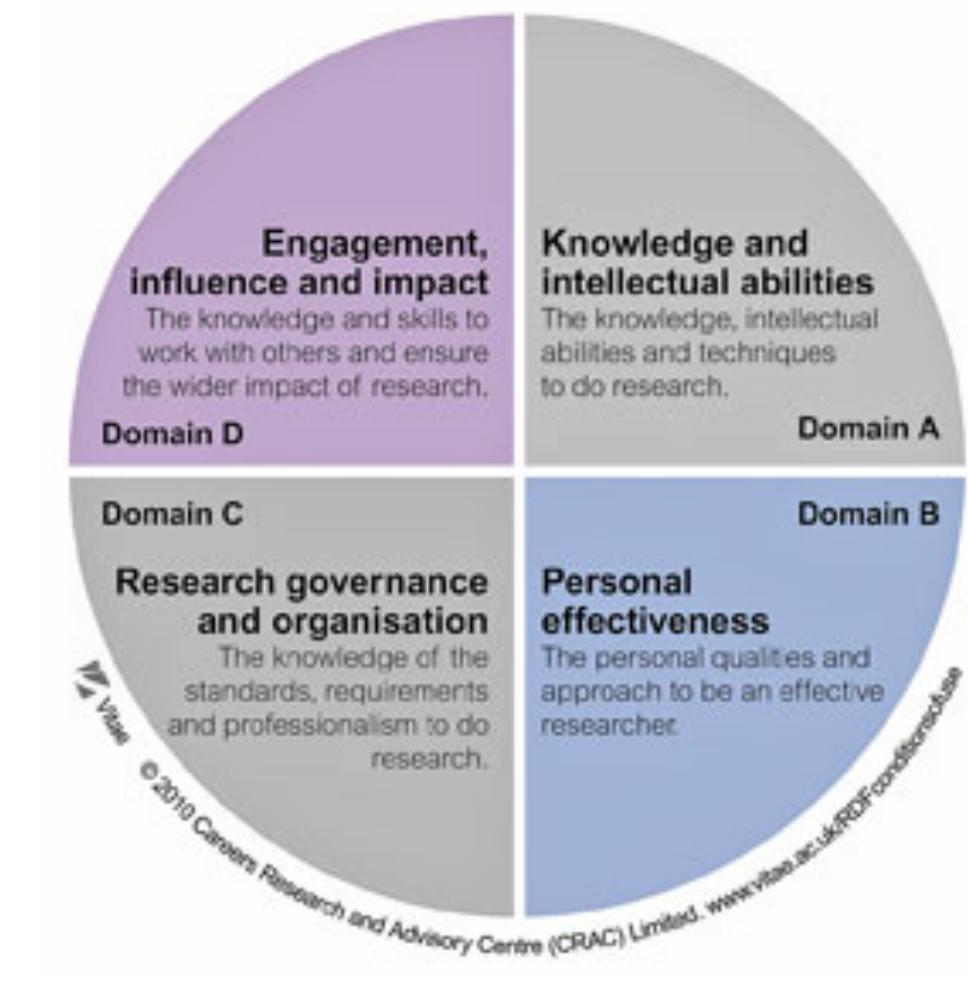
# WEB ACCESSIBILITY

## NEW TECHNIQUES TO IMPROVE

### ASSISTIVE TECHNOLOGIES DESIGN

DR DAVID SLOAN

WORKSHOP COORDINATORS:ANA-MARIA SALAI



KNOWLEDGE BASE,  
CREATIVITY & WORKING  
WITH OTHERS

There is an increased demand for rich interaction; however, many of these dynamic interactions and widgets are problematic for assistive technologies. Are you planning to involve people with disabilities in your research? Are you interested in designing accessible systems? Are you wondering how to make a drag-and- drop element keyboard accessible? Meeting accessibility standards is essential not only to help people with disabilities, but to also make a website more efficient. Join this workshop to understand (1) how accessibility can affect a website and (2) how it can be implemented.

**Part 1 (30 minutes):** Participants will receive a brief introduction to web accessibility principles and current guidelines.

**Part 2 (30 minutes):** Participants will receive W3C guidelines and will be asked to implement small tasks.

**Part 3 (30 minutes):** Participants will team up into groups to discuss the guidelines and possibly generate new ideas on how to gain accessibility.

Basic web development knowledge is necessary to gain the most out of this workshop.



## KNOWLEDGE AND INTELLECTUAL ABILITIES

# HOW TO DO A SYSTEMATIC LITERATURE REVIEW

DR JEREMY SINGER & DR TIM STORER  
WORKSHOP COORDINATOR: GIBRAIL ISLAM

A well-developed literature review is critical to any PhD project. During the early stages of your research it guides the selection of your research questions, whilst in the thesis and viva it demonstrates your understanding of the field and the place of your work within it, to your examiners. Many questions arise during the construction of a literature survey:

- What new avenues or directions should I consider?
- What don't I know about this topic?
- Have I read enough of the literature?
- Why should I believe the conclusions in this paper
- How should I present the findings of this paper

There are several different philosophical approaches to conducting a review of the literature, reflecting different potential audiences and purposes. We will provide you a step-wise guideline to conduct a literature review, including how to decide whether particular techniques and/or methods are appropriate. We will look at: how to search for material relevant to your topic of study using both search tools and snowballing techniques; how to decide on relevance criteria to filter results; how to make your literature selection construction transparent and traceable; and finally, how to construct a \*meta-analysis\* of the literature and decide when it is appropriate to do so.

Finally, we will discuss how to assess, present, and critically discuss the contribution made by each article, and make a rigorous decision about excluding work where appropriate.

# PHD CONFERENCE HACKATHON



**PROFESSOR EMANUELE TRUCCO**  
**WORKSHOP COORDINATORS: KYLE MARTIN &**  
**SIMONE BARLOCCO**

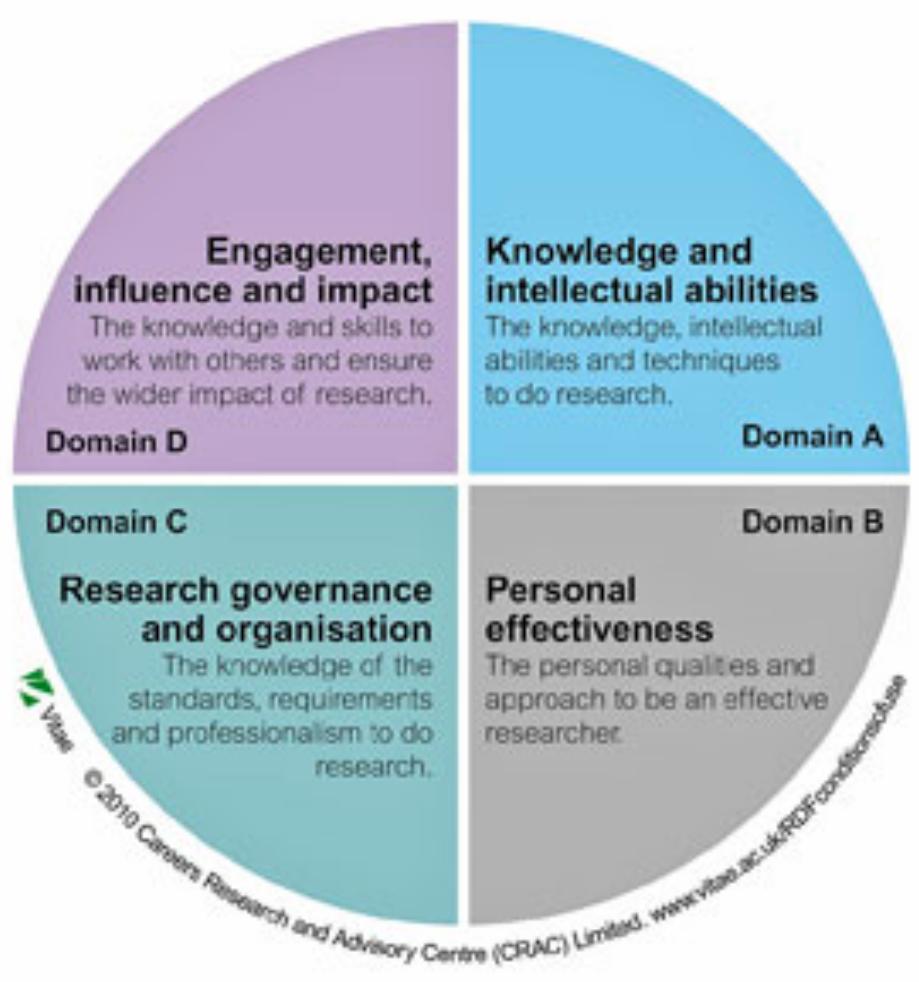
**CREATIVITY,  
PROFESSIONAL AND  
CAREER DEVELOPMENT,  
FINANCE, FUNDING AND  
RESOURCES & WORKING  
WITH OTHERS**

The PhD Conference Hackathon offers a unique opportunity for research students to learn the skills required to submit well-structured grant applications to funding bodies. The goal of the Hackathon is to help research students develop these skills and encourage cross-theme and cross- institution collaboration.

**Part 1 (90 minutes, including Q&A):** Presentation on how to write good grant proposals. Students will be split into groups according to their research topics. Each group will work construct a short research proposal with the goal of proposing a novel research project (students are welcome to work after the end of this section of the workshop, if they wish).

**Part 2 (90 minutes):** Oral presentation of the short proposals according to specified criteria provided by Prof. Trucco. Feedback will be provided both by the speaker and by the other students.

All students should bring their own laptop.



A1 - KNOWLEDGE BASE  
 B2 - SELF MANAGEMENT  
 C1 - PROFESSIONAL CONDUCT  
 C2 - RESEARCH MANAGEMENT

# DEMYSTIFYING THE PHD THESIS

DR MICHAEL SMYTH  
 WORKSHOP COORDINATOR: MARWA SALAYMA

So, you have read the literature, refined your research objectives, carried out a study or two, maybe even indulged in a little light analysis of your data, possibly built something that people/bots have evaluated or tested .... but whatever you have done, one thing for certain is ..... the thesis.

How do you go about writing a thesis, have you ever looked at a finished thesis or is that just too scary?

In this workshop we will attempt to demystify the thesis by discussing the following and more:

- How should it be structured?
- What should it look like?
- How long should it be?
- Will my thesis ever be coherent?

**Part 1 (40 minutes):** Presentation, what is the purpose of the thesis; how can a thesis be structured and who is the audience for the thesis?

**Part 2 (30 minutes):** Discussion, using examples of previous theses.

**Part 3 (20 minutes):** Round up your thesis.

Feel free to bring any piece of your thesis writing so to discuss it during the session. Dr Michael will send his presentation slides to all the workshop attendees. If you have further questions regarding writing your thesis please email Dr Michael Smyth.

# 5 STATISTICAL MISTAKES YOU ARE LIKELY TO MAKE



KNOWLEDGE BASE &  
ENGAGEMENT AND  
IMPACT

LINDA LAPP

WORKSHOP COORDINATORS: LOVISA SUNDIN

The dark art of lying with statistics is worth knowing not only among Fox News anchors, but also among PhD students who wish to avoid their findings being misconceived or sensationalised. This workshop will give students an insight into how easy it is to misrepresent data. Going beyond old classics like "correlation doesn't equal causation", the workshop will cover slightly more subtle confusions like relative vs. absolute risk, excessive precision, and effect size neglect. The students will also participate in an exercise of re-writing abstracts in a sensationalised form. This will highlight just how easy it is to exaggerate findings, but also helps to give an idea on how to communicate research in a simple, yet appealing way to reach wider audiences.

**Part 1 (45 minutes):** The speaker will present an entertaining introduction into common reporting mistakes and misconceptions.

**Part 2 (45 minutes):** There will be an interactive session where participants will be given a journal abstract and asked to come up with one truthful title and one sensationalised title.

Please bring a max 300-word abstract of your research with you. This is to give a general idea of what your research is about. Questions are welcome.



**PROFESSIONAL AND  
CAREER DEVELOPMENT &  
COMMUNICATION AND  
DISSEMINATION**

# YOUR PHD - WHAT'S NEXT?

**DR FREDRIK NORDVALL FORSBERG**  
**WORKSHOP COORDINATORS: SIMONE BARLOCCO**

This workshop will provide an understanding of the different career options open to postgraduate researchers. The participants will explore some paths they could follow after their PhD. That is, the opportunity of getting a job in the industry and/or working as a contract researcher in academia.

Also, the workshop will focus on how PhD students could take advantage of soft competences, developed during their PhD, such as communication skills, time management and analytical thinking for employment prospects.

**Part 1 (30 minutes):** According to their experience, our speakers will present the possible career options a PhD could have focusing on computer science environment.

**Part 2 (60 minutes):** There will be an interactive session so that participants may become familiar with soft skills a PhD student can use in academia and/or in industry.

Questions are welcome. Personal experience is fundamental, feel free to ask questions to our speakers. Paper and pens required.

# ACCOMMODATION

Delegates traveling from outside Aberdeen will be accommodated for the nights of 27th & 28th June at RGU's Woolmanhill Flats. Bus transport will be provided between the conference venue and the accommodation (please see the Coach Details on page 20). For delegates who are traveling by car, free parking facilities are available at the Woolmanhill Flats (Woolmanhill Flats, 134 John Street, Aberdeen, AB25 1LE).

The Woolmanhill Accommodation is approximately a 10-minute walk from either the bus station or train station on Union Street in the City Centre and approximately 55-minutes walk to the Sir Ian Wood Building, Garthlee Campus (conference venue). Alternatively, bus routes 1 & 2 from Union Street Bus Station take you directly to the Conference Venue

All rooms are single occupancy and towels and toiletries will be provided. A full information sheet will be available at the accommodation.

The conference will take place in the Sir Ian Wood Building, Garthlee Campus. The majority of the conference workshop rooms are located on level 3 and there will be full signage throughout the building as well as members of the conference committee guiding you to your chosen workshops.

A dedicated room for storing bags on the days of the conference will be available should you have any personal belongings with you. This room will be either locked or staffed at all times.

# POSTER DROP OFF

While delegates who are contributing a poster to the session are welcome to bring it along with them on the morning of day one, we also have an option this year where delegates can drop off their poster to our dedicated poster team at the reception area of the conference accommodation flats at Woolmanhill. Please note that this service will conclude at 5pm on the night of 27th June.

Please ensure that the poster tube or wrapping clearly states your name and the number of your poster on it (see pages 21-23).

# SOCIAL EVENT

## CONFERENCE DINNER



The main social event of the SICSA PhD Conference 2018 will be an evening get together with dinner and refreshments at the stunning Trinity Hall on the night of 28th June at 7.00pm.

Trinity Hall is the home of the Seven Incorporated Trades of Aberdeen, a workers union dating back to 1587. The building was constructed in 1966, and contains numerous works of art and historical artifacts which you have the opportunity to view. The building is grand, with wide-open spaces and objects of interest in every direction you look.

## BACK OF THE NAPKIN CHALLENGE

The Back of the Napkin Challenge is an informal networking game, which will take place at the conference dinner with the main purpose being to get our delegates talking and collaborating with each other. The premise is simple: explain your research to someone using only a pen and napkin (provided). Outlining your research properly in so few words is surprisingly challenging, and will help you hone the conciseness of how you do so. In addition, the high- level description may reveal similarities between you and someone else's work, even if they are not the same field within computer science research.

## PRE-CONFERENCE BBQ

Weather permitting, the RGU ResLife team have kindly agreed to host a BBQ for our delegates on the evening prior to the conference (Wednesday 27th June). This will take place at the Woolmanhill Accommodation and is open to all conference delegates....not just those staying at the accommodation. This will be a great opportunity to begin your networking and get to know your fellow researchers.

Please note; if weather does not allow the BBQ to take place it is your own responsibility to arrange your evening dinner on the night of 27th June.

# WIFI INFORMATION

## ROBERT GORDON UNIVERSITY (VENUE)

Eduraom is available in all workshop rooms, labs and lecture theatres associated with the SICSA PhD Conference. However if for any reason you do not have eduraom or you encounter an issue with Wi-Fi please speak to a member of the conference committee.

## WOOLMANHILL FLATS (ACCOMMODATION)

Free internet connection is available at Woolmanhill through StudentCom (user set up guides are available from reception) but below is a basic guide. On your device, scan for available networks and select StudentCom For free broadband click on “Register” you will automatically be redirected to the “create account” page. (you can pay for an upgrade but it is not necessary) Complete all fields on the registration page and choose a memorable username and password. Click “Register” If registration has been successful a confirmation screen is displayed and you will be logged in automatically. You will also receive an e-mail confirming your username.

# COACH DETAILS

THURSDAY	PICKUP	DESTINATION
08:45	Woolmanhill Student Apartments (AB10 1TN)	Sir Ian Wood Building, Garthlee Campus, RGU
16:45	Sir Ian Wood Building, Garthlee Campus, RGU	Woolmanhill Student Apartments (AB10 1TN)
18:45/19:00	Woolmanhill Student Apartments (AB10 1TN)	Trinity Hall, Holburn Street AB10 6DA
22:00	Trinity Hall, Holburn Street AB10 6DA	Woolmanhill Student Apartments (AB10 1TN)
FRIDAY	PICKUP	DESTINATION
08:45	Woolmanhill Student Apartments (AB10 1TN)	Sir Ian Wood Building, Garthlee Campus, RGU
15:30	Sir Ian Wood Building, Garthlee Campus, RGU	Aberdeen Train Station

# POSTER SESSION

## ARTIFICIAL INTELLIGENCE

1	<b>STEPHANIE INGLIS</b>	TEXTUALLY SUMMARISING INCOMPLETE DATA
2	<b>BEN TREVETT</b>	INFERRING INEFFICIENCIES IN SOURCE CODE
3	<b>MUSA KARATU</b>	A CONCEPTUAL FRAMEWORK OF STARLING'S SWARM INTELLIGENCE INTRUSION PREVENTION FOR SOFTWARE DEFINED NETWORKS
4	<b>BORIS MOCIALOV</b>	SIGN-MATE: TOWARDS AUTOMATED SIGN LANGUAGE TO WRITTEN LANGUAGE TRANSLATION
5	<b>SOFIAT OLAOSEBIKAN</b>	STUDENT-PROJECT ALLOCATION PROBLEM WITH TIES
6	<b>SIOBHAN DUNCAN</b>	BRINGING STIGMERGY INTO THE REAL WORLD
7	<b>PETER AABY</b>	HUMAN IDENTIFICATION THROUGH CAPTURING TOUCH BEHAVIOUR FOR CONTINUOUS AUTHENTICATION SYSTEMS
8	<b>HOPE EKE</b>	SECURING INFORMATION SYSTEMS IN OIL & GAS INDUSTRY AGAINST ADVANCED PERSISTENT THREAT (APT)
9	<b>CHINEDU EZENKWU</b>	AUTONOMOUS LEARNING TECHNIQUE
10	<b>PAMELA JOHNSTON</b>	BEYOND THE PIXELS: USING COMPRESSION INFORMATION TO DETECT TAMPERING IN VIDEO (POSTER).
11	<b>KEMAS WIHARJA</b>	THE PATTERN-BASED REASONING TO INVESTIGATE THE CORRECTNESS OF A KNOWLEDGE GRAPH
12	<b>IAIN CARSON</b>	SENSORY AUGMENTATION
13	<b>ANA CIOCARLAN</b>	KINDNESS IS CONTAGIOUS: PERSONALISING PERSUASIVE INTERVENTIONS FOR WELLBEING
14	<b>DARONNAT SYLVAIN</b>	HUMAN-AGENT COLLABORATION IN HIGH PRESSURED AND COMPLEX INFORMATION ENVIRONMENTS
15	<b>MOHAMMED AL-ABOIDI</b>	PORTFOLIO ALGORITHM ACHIEVING SUPERIOR NETWORK PERFORMANCE IN WIMAX

## CYBER SECURITY

16	<b>YAZEED ALKHURAYYIF</b>	ESTIMATING READABILITY OF ISPS WITH TRADITIONAL READABILITY METRICS AND RECENT STATISTICAL APPROACHES
17	<b>ABDULLAH ALTAWAIRQI</b>	ELICITING OF VULNERABILITIES IN SYSTEMS ANALYSIS USING AADL AND STPA-SAFESEC
18	<b>KRITSANA KHIAOMANG</b>	STRATEGIES FOR COVERT WEB SEARCH
19	<b>TIN TIRONSAKKUL</b>	CRYPTOCURRENCY TRANSACTION ANOMALY DETECTION
20	<b>ABDULWHAB ALKHARASHI</b>	UNDERSTANDING ABUSIVE BEHAVIOUR IN ONLINE GROUP DISCUSSIONS
21	<b>SARA ALBAKRY</b>	PHISHING PREVENTION: CAN PEOPLE READ URLs?
22	<b>PITPIMON CHOOROD</b>	TOR TRAFFIC CLASSIFICATION USING MACHINE LEARNING TECHNIQUES

# POSTER SESSION

## DATA SCIENCE

23	NORA AYU AHMAD UZIR	DETECTING TIME MANAGEMENT STRATEGIES WITH LEARNING ANALYTICS UNDER CHANGING FEEDBACK CONDITIONS
24	AZWA BIN ABDUL AZIZ	ANALYSING FAKE NEWS TITLES FOR 2015 TRUMP-HILLARY CAMPAIGN USING CONTEXTUAL APPROACHES IN TEXT ANALYTICS
25	ARLENE CASEY	WHAT MAKES FOR QUALITY IN A RELATED WORKS? CAN AUTOMATICALLY RECOGNISING IT BENEFIT STRUGGLING WRITERS?
26	WANNISA MATCHA	BEYOND DATA PRESENTATION: LEARNING ANALYTICS TO UNCOVER LEARNING STRATEGIES AND THE INFLUENCES OF FEEDBACK
27	MOHAMMED ALHAMED	EMOTION DETECTION WITH INTELLIGENT ASSISTANTS IN INFORMATION SEEKING
28	MOHAMMED ALHAMED	TOWARDS DECISION MAKING AUTOMATION IN SOFTWARE ENGINEERING
29	ERIN HUGHES	REAL-TIME INTERACTIVE VISUALISATION OF 4D TUMOUR SPHEROIDS
30	ZEZHONG WANG	DATA COMICS FOR DATA DRIVEN STORYTELLING

## HUMAN COMPUTER INTERACTION

31	MUHAMMAD ADAMU SIDI-ALI	ADAPTIVE E-LEARNING: MOTIVATING LEARNERS WHILST ADAPTING FEEDBACK TO CULTURAL DIFFERENCES
32	ALJAWHARAH ALABDULLATIF	SUPPORTING FRIENDSHIP FOR CHILDREN WITH AUTISM SPECTRUM CONDITION
33	YOGITHA ALAPATI	CHALLENGES OLDER ADULTS FACE IN USING DIGITAL HEALTH APPLICATIONS EFFECTIVELY
34	DIANE COCHRANE	UNDERSTANDING BARRIERS & BENEFITS FOR THE ADOLESCENT USING DIGITAL DIABETES TECHNOLOGY TO MANAGE GLYCAEMIA
35	MATEUSZ DUBIEL	HUMAN-LIKE CONVERSATIONAL SEARCH AGENTS: EXPLORING IMPACT OF NATURAL LANGUAGE ON USER'S SEARCH EXPERIENCE
36	JAMIE FERGUSON	REPRESENTING DATA USING AUDITORY AND TACTILE DISPLAYS
37	RYAN GIBSON	MOBILE SUPPORT FOR ADULTS WITH MILD LEARNING DISABILITIES DURING CLINICAL CONSULTATIONS
38	LAUREN GILLIES	DESIGNING INTERVENTIONS USING TECHNOLOGY TO IMPROVE SOCIAL AND EMOTIONAL SKILLS FOR PEOPLE WITH AUTISM
39	ALBERTO GONZÁLEZ OLMOS	SUBLIMINAL MULTIMODAL INTERFACE TO LEARN TO EMPATHIZE WITH ANXIOUS CHILDREN
40	AVASHNA GOVENDER	USING PUPILLOMETRY TO MEASURE THE LISTENING EFFORT OF SYNTHETIC SPEECH
41	ARIS MALAPASCHAS	EXPLORING THE USE OF VIRTUAL ASSISTANTS FOR THE REHABILITATION OF PEOPLE WITH ACQUIRED BRAIN INJURY
42	REVATHY NAYAR	TOWARDS DESIGNING SPEECH TECHNOLOGY BASED ASSISTIVE INTERFACES FOR CHILDREN'S SPEECH THERAPY
43	CHRISTOPHER NORRIE	DEVELOPING A NOVEL SYSTEM TO SUPPORT LANGUAGE ACQUISITION IN CHILDREN WITH COMPLEX COMMUNICATION NEEDS (CCN)
44	LADAN SAFIEE	DIGITAL SUPPORT FOR GESTATIONAL DIABETES MELLITUS (GDM) SELF-MANAGEMENT AND CARE IN PREGNANCY
45	GARRETH TIGWELL	IT'S NOT JUST THE LIGHT: SITUATIONAL VISUAL IMPAIRMENTS DURING MOBILE INTERACTION

# POSTER SESSION

## NETWORKING AND SYSTEMS

<b>46</b>	<b>DAWAND SULAIMAN</b>	MAMOC: MULTISITE ADAPTIVE OFFLOADING FOR MOBILE CLOUD APPLICATIONS
<b>47</b>	<b>CRAIG THOMSON</b>	UTILISING SINK MOBILITY PATTERNS TO IMPROVE DUTY CYCLING AND ROUTING EFFICIENCY OF WIRELESS SENSOR NETWORKS
<b>48</b>	<b>DHAHI ALSHAMMARI</b>	A CROSS VALIDATION STUDY ON THE LEVEL OF ACCURACY IN SIMULATION AND MATHEMATICAL PREDICTION MODELING: TOOLS FOR CLOUD COMPUTING
<b>49</b>	<b>NAMAN MERCHANT</b>	SCALABLE DISTRIBUTED COMPUTATION TO SIMULATE THE ECOLOGY OF A 4D VIRTUAL TUMOUR
<b>50</b>	<b>OLAOLUWA POPOOLA</b>	PACKET DURATION MULTIPLEXING TO REDUCE COLLISIONS IN UNSYNCHRONIZED LED-BASED INDOOR POSITIONING SYSTEMS
<b>51</b>	<b>TOM WALLIS</b>	MODELLING REALISTIC USER BEHAVIOUR IN INFORMATION SYSTEMS SIMULATIONS AS FUZZING ASPECTS

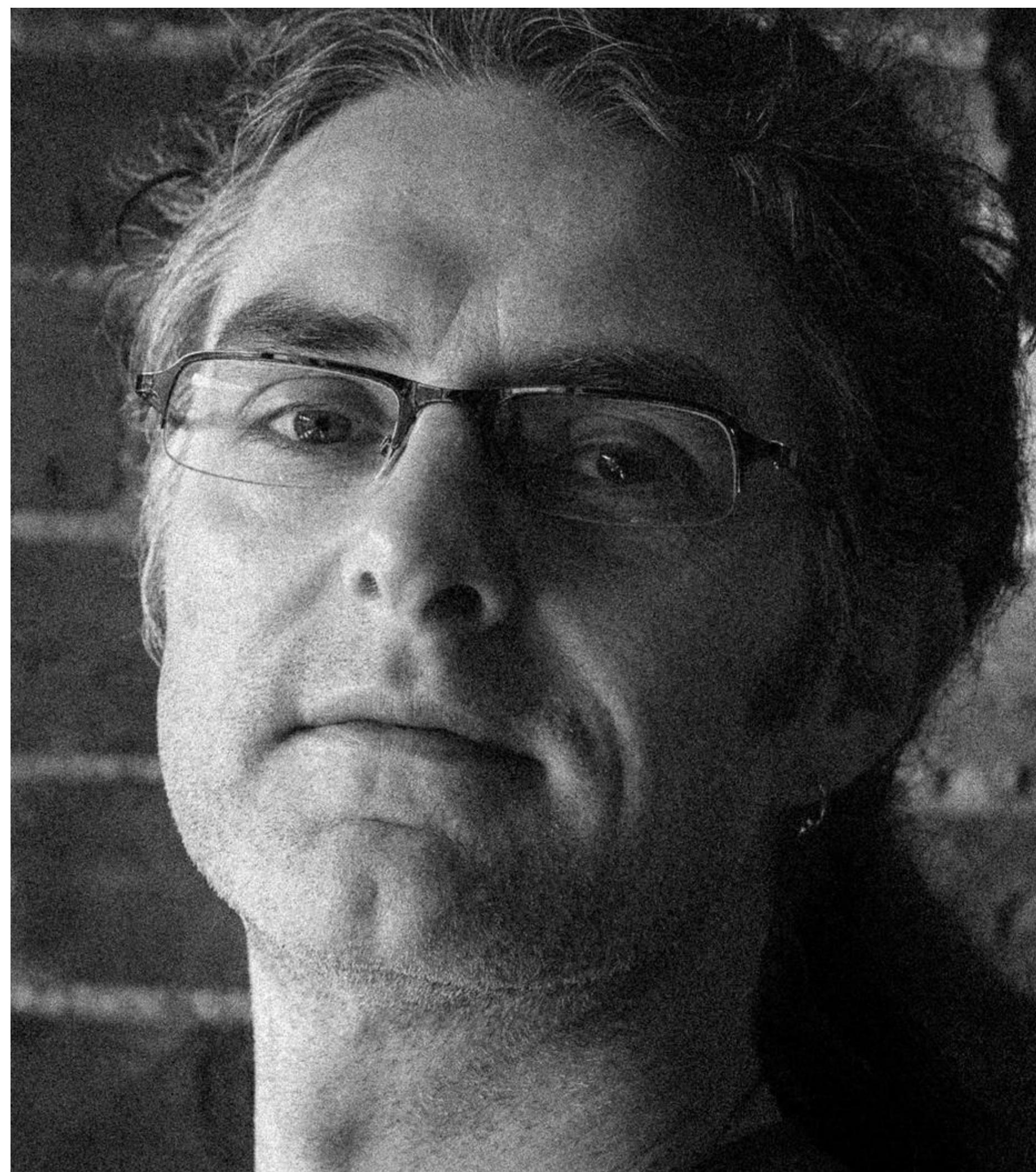
## THEORY, MODELLING AND COMPUTATION

<b>52</b>	<b>SALAHEDDIN HOSSEINZADEH</b>	A NEURO-FUZZY MODEL FOR LORAWAN PROPAGATION
<b>53</b>	<b>WAQAS JAVED</b>	POST FAULT BEHAVIOUR ANALYSIS FOR LOW VOLTAGE DC MICROGRIDS USING MATLAB
<b>54</b>	<b>XUE LI</b>	REPAIRING DATALOG-LIKE LOGICAL THEORIES BY COMBINING ABDUCTION, BELIEF REVISION AND CONCEPTUAL CHANGE
<b>55</b>	<b>IMOGEN MORRIS</b>	MECHANISING BIRKHOFF'S RULER AND PROTRACTOR GEOMETRY IN ISABELLE
<b>56</b>	<b>AMY PARENT</b>	BROWN DWARF CLOUD EVOLUTION MODELLING: RECOVERING ATMOSPHERIC PROPERTIES USING INTERNAL GRAVITY WAVES SIMULATIONS.
<b>57</b>	<b>SAM RUPPRECHTER</b>	IMPAIRMENTS IN THE USE OF REWARD VALUES IN MAJOR DEPRESSION AND NEUROTICISM
<b>58</b>	<b>MINHONG WANG</b>	AGENT STATE BASED MODELLING OF PATTERN FORMATION IN PLURIPOTENT STEM CELLS
<b>59</b>	<b>THOMAS WRIGHT</b>	PATTERNS OF GENE REGULATION IN THE BOND CALCULUS
<b>60</b>	<b>RUI ZHAO</b>	MODELLING DATA RULES: INFERENCEABLE TERMS AND CONDITIONS

# POSTER COMPETITION

This year, along with prizes for the best 1st, 2nd & 3rd year posters there will be a prize for the 'Student's Choice' poster. You will find a SICSA sticker in your delegate bag and over the next two days you should place this sticker on the board of your best poster.

# SICSA SUPERVISOR OF THE YEAR AWARDS



Is your PhD supervisor a hero? SICSA recognises PhD supervision excellence with an award for the Scottish Computing Science Supervisor of the Year. In summer 2017 all SICSA PhD students were invited to recognise the fantastic work of their supervisors by making nominations for the SICSA Supervisor of the Year Award.

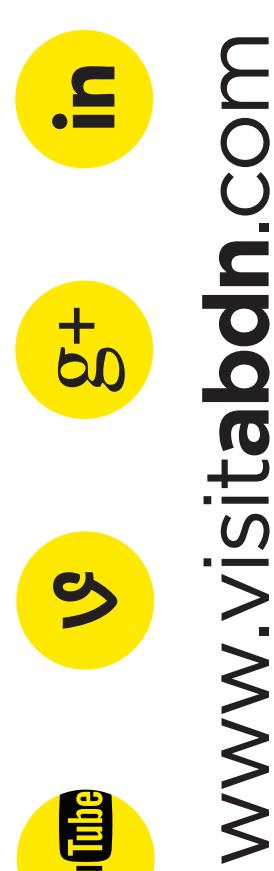
Around 50 academics from 10 universities were nominated for the award. Following consideration of the students' submissions, at Demofest 2017 SICSA announced that Prof Stephen Brewster (pictured) of the University of Glasgow was the winner. Prof Hazel Hall of Edinburgh Napier University was the runner up.

We will be running this scheme again in 2018 – please look out for the #SICSAsooty2018 nomination form in September and consider nominating your supervisor. We will make the award at Demofest 2018, on 6th November in Edinburgh.

## Useful Information:

- Key Attractions:**
- 1 MUSIC HALL\*
  - 2 CENTRAL LIBRARY
  - 3 HIS MAJESTY'S THEATRE
  - 4 COWDRAY HALL\*
  - 5 ART GALLERY\*
  - 6 LEMON TREE
  - 7 ACT ABERDEEN
  - 8 PROVOST SKENE'S HOUSE\*
  - 9 TOLBOOTH
  - 10 MARITIME MUSEUM
- \*Please note that these venues are currently closed for re-development.

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## Aberdeen City Centre Map

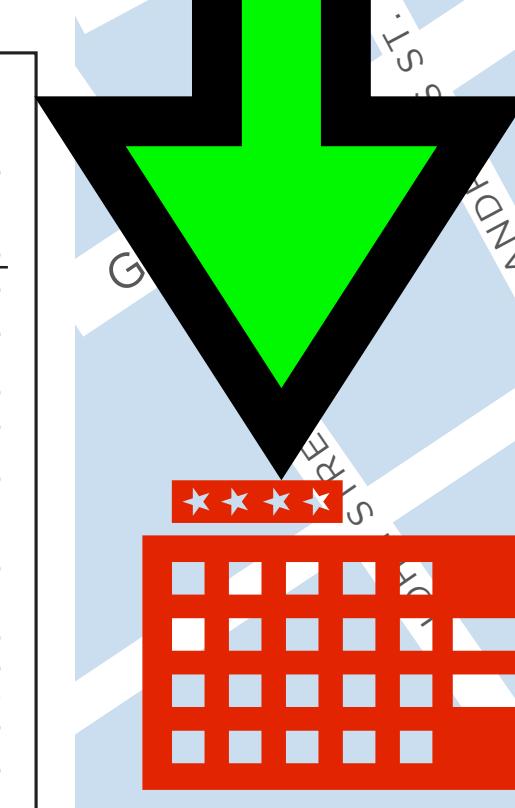


THE WEST END

@hamishmunro	Aberdeen Whisky Shop
Bagozza	Black & Lizzars
Bellino	Colin Wood Antiques
Elizabeth Watt	Esslemonts II
Esslemonts II	Fenner & Coburn
Flower Vogue	Gallery Heinzel
Innocence	John Park
John Park	Kafka
Kafka	Michies
Michies	Nomasvello
Nomasvello	Nova
Nova	Platinum Hair
Platinum Hair	Pure
Pure	Saks Hair & Beauty
Saks Hair & Beauty	Signature
Signature	Straine Opticians
Straine Opticians	The Hair House
The Hair House	The Men's Emporium
The Men's Emporium	Thistle Sports
Thistle Sports	White Jasmine

Trinity Hall further down this street!

Woolmanhill Flats



Green arrow pointing down the street towards Trinity Hall.

**Useful Information:**

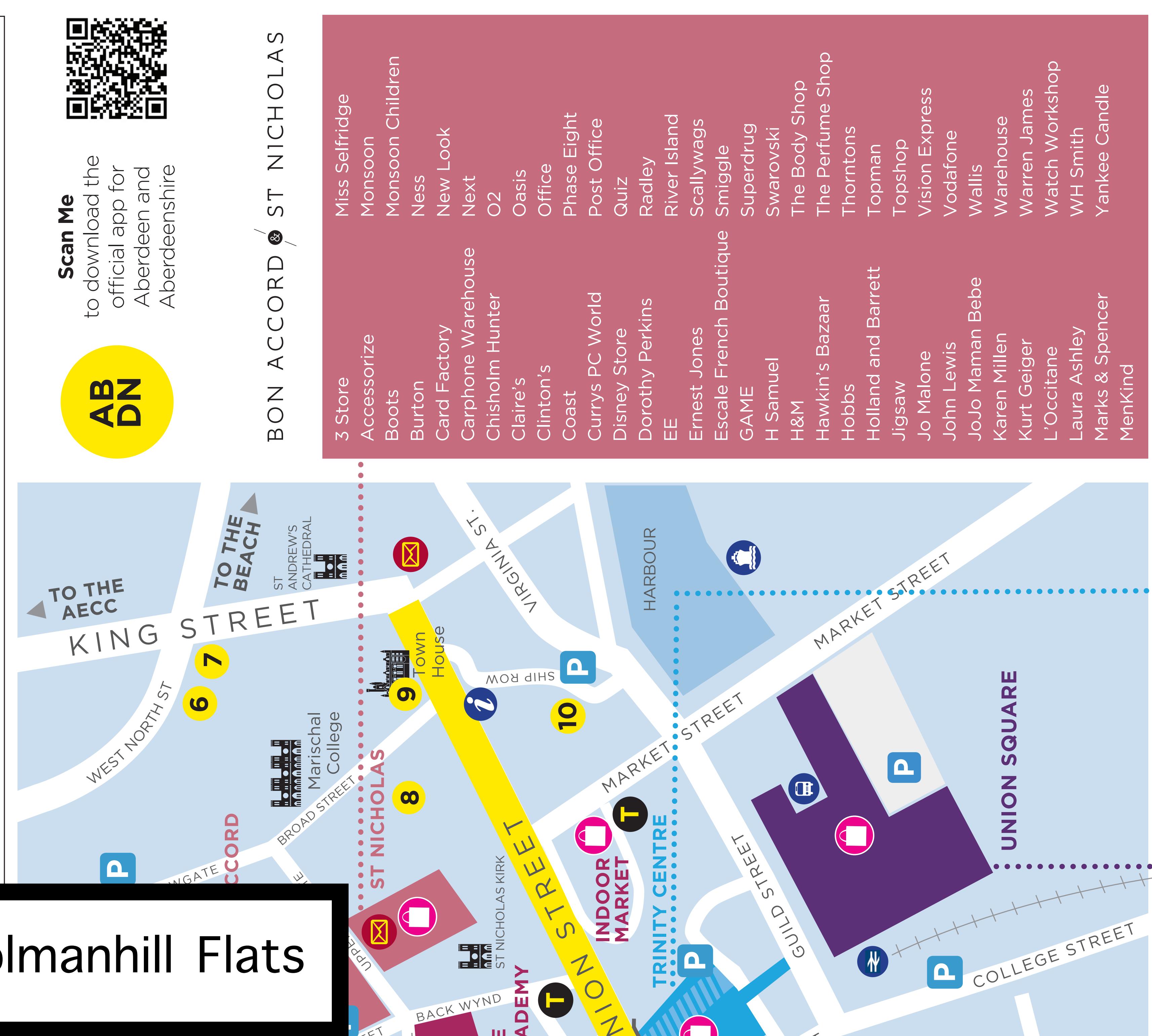
Taxis	Rainbow 01224 878787 Comcabs 01224 353535 Airport Taxis 01224 775555	Aberdeen Bus Station Guild Street, Aberdeen, AB11 6NA <a href="http://www.scotrail.co.uk">www.scotrail.co.uk</a> 0345 811 0141 <a href="http://www.nationstrail.co.uk">www.nationstrail.co.uk</a> 0345 748 4950 Northlink Ferries Jamieson's Quay, Aberdeen, AB11 5NP <a href="http://www.northlinkferries.co.uk">www.northlinkferries.co.uk</a> 0845 600 0449
Visitor Information Centre	23 Union Street, Aberdeen, AB11 5BP 01224 269180	23 Union Street, Aberdeen, AB11 5BP 01224 591381

\*Please note that these venues are currently closed for re-development.



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## TrinityCentre

Officers Club	Trespass
Primark	Warren James
Quiz	Watstones
Schuh	
Superdrug	
Timpson	

The White Company	
TK Maxx	
TM Lewin	
USC	
Zara	

H&M	Rox
Hobbycraft	Saks Hair
Hollister	SoleTrader
Hotel Chocolat	Sony Centre
House of Fraser.com	Superdry
Jack & Jones	Swatch
JD Sports	The North Face

Accessories	Clarks
Apple	Cotswold Outdoor
Boots	Deichmann
Boss	Dreams
Boulevard	Dune
Carphone Warehouse	Fat Face
Cath Kidston	Fossil

# GARTHDEE CAMPUS MAP

**GARTHDEE ROAD, ABERDEEN, AB10 7QB**

**UNIVERSITY MAIN SWITCHBOARD**  
+44 (0)1224 262000



The Garthdee campus is situated on the south side of the city, on the banks of the River Dee.

Regular buses run to and from the Garthdee campus.

For more information, go to [www.rgu.ac.uk/transport](http://www.rgu.ac.uk/transport)

There are cycle parking and changing facilities across the Garthdee campus.

Blue dots indicate catering outlets

## SAT NAV POSTCODES

Gray's School of Art	AB10 7QD
Garthdee House	AB10 7QB
Aberdeen Business School	AB10 7QE
Faculty of Health and Social Care	AB10 7QC
<b>The Sir Ian Wood Building (at Riverside East)</b>	
For The School of Engineering and DART®	
The School of Computing Science and Digital Media,	
The School of Pharmacy & Life Sciences and	
The Scott Sutherland School of	
Architecture and Built Environment	AB10 7QJ

## CAN'T MAKE IT IN PERSON?

**TAKE A TOUR OF THE CAMPUS AT**  
[WWW.RGU.AC.UK/VIRTUALTOURS](http://WWW.RGU.AC.UK/VIRTUALTOURS)

**YOU CAN WALK ACROSS THE ENTIRE CAMPUS  
IN AROUND 10-15 MINUTES.**

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