

Sheffield  
Hallam  
University

9-12 June 2020

**Creating Knowledge  
Conference 2020**

#CK20online





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# Welcome - Research and Innovation at Sheffield Hallam University



This conference comes at a critical time in the higher education landscape, where the shifts and challenges of adjusting to change touches upon everything we do. This event offers us the chance to reconnect, reflect and reignite our research ambitions in light of these changes, and look to the future with a renewed energy and a powerful narrative on our impact and applied ethos.

Our rapidly growing research programme is developing innovative, practical solutions to real world problems. Working across disciplines in world class facilities, our academics are tackling the cultural, economic, social and health challenges facing society today, driving significant improvements to the lives of individuals and communities the world over, including within our own region.

Dr Mooney joined the University's Leadership Team with overall responsibility for the University's research and innovation strategy in March this year. She will lead the implementation and further development of the Creating Knowledge Plan including leading the development of the University's research institutes and facilitating growth in research and innovation capacity and impact.

"I am extremely excited to be joining Sheffield Hallam at such a critical juncture in its ambitious plans, and at a time where we can really capitalise on such a great network of partnerships and collaborations. In establishing a focused and dynamic research strategy, we are ready to take the next steps in innovating the way we convene around local and global challenges. It is the passion and commitment for interdisciplinary working that drew me to Hallam, and that will ultimately inspire us to join forces for the greatest impact and the best visibility on the global stage."

**Dr Lisa Mooney**  
Pro Vice-Chancellor for Research and Innovation

# Welcome - The Creating Knowledge Conference 2020



The Creating Knowledge Conference is now in its third year and, due to the global pandemic and our inability to connect on campus, things will look a little different this time. After careful consideration, we have decided that there remains a need to showcase the excellent research activity taking place across the University by our academic staff and postgraduate researchers.

We have reconsidered our traditional one-day conference format. This year, we are highlighting the diversity of research activities supported by the Creating Knowledge Implementation Plan (CKIP) funding schemes over four days (9th - 12th June). Our programme has been devised (and adapted) to promote engagement, encourage future collaboration and celebrate research impact. There will be live sessions taking place with opportunities for interaction alongside curated content. This will remain accessible in a bid to increase inclusivity as we face varying working from home environments.

Alongside our wonderful 3MT competition, you will see that we have a range of different presentation formats this year, including: 'lightning' presentations associated with each of our research and impact platforms (Future Economies, Thriving Inclusive Communities and Healthy Independent Lives) and from Chancellor's Fellows; workshops based on research clusters; and panels exploring the experience of being a researcher at Sheffield Hallam.

Now, more than ever, there is a need to acknowledge the importance of being part of a wider community. We are highlighting examples of researcher-led initiatives aimed at enhancing the research environment and introducing the new Research Institutes. There is some fabulous research activity happening across the University and I am looking forward to a week of inspiration and lively debate.

**Dr Nicola Palmer**  
Head of Doctoral Training



# Programme

## Day 1 – Tuesday 9 June

Time	Activity	Via
10:00 – 11:00	Opening 3MT competition	Zoom Meeting ID: 942 8276 0364
11:00 – 11:30	Virtual coffee	Zoom Meeting ID: 976 3120 5927
13:00 – 14:00	<b>Future Economies</b> presentations + Q&A	Zoom Meeting ID: 975 0781 0833
14:30 – 15:30	<b>Thriving Inclusive Communities</b> presentations + Q&A	Zoom Meeting ID: 912 3498 3093
16:00 – 17:00	<b>Healthy Independent Lives</b> presentations + Q&A	Zoom Meeting ID: 973 9569 0858
All day	<b>Randomised research questions:</b> online ice-breaker	Twitter #CK2Online

## Day 2 – Wednesday 10 June

Time	Activity	Via
10:00 – 11:00	Building inclusive communities discussion	Zoom Meeting ID: 917 7678 8901
11:00 – 11:30	Virtual coffee	Zoom Meeting ID: 996 0357 2874
13:00 – 14:00	<b>Collaborative Research Workshop 1</b> Conversational AI	Zoom Meeting ID: 992 8979 1581
14:30 – 15:30	<b>Collaborative Research Workshop 2</b> Appetite Research Cluster	Zoom Meeting ID: 976 1425 9820
All day	<b>Reflections of research:</b> online image sharing	Twitter #CK2Online

### Day 3 – Thursday 11 June

Time	Activity	Via
10:00 – 11:00	Question Time Panel / ask the expert	Zoom Meeting ID: 935 5758 9285
11:00 – 11:30	Virtual coffee	Zoom Meeting ID: 989 4368 4646
13:00 – 14:00	<b>Collaborative Research Workshop 3</b> Contemporary Legend Research Cluster	Zoom Meeting ID: 972 2333 3836
14:30 – 15:30	<b>Collaborative Research Workshop 4</b> Transnational Popular Culture	Zoom Meeting ID: 943 7576 6229
All day	<b>Would like to meet...</b> researcher connections	Twitter #CK2Online

### Day 4 – Friday 12 June

Time	Activity	Via
10:00 – 11:00	<b>Spotlight on...</b> Early Career Researchers	Zoom Meeting ID: 933 5633 3367
11:00 – 12:00	Sheffield Institute for Policy Studies (SIPS) Poster session	Zoom Meeting ID: 958 1603 1487
13:00 – 14:00	Virtual lunch / meet the Research Institute Directors and Close	Zoom Meeting ID: 941 4435 5139
14:00 – 16:00	<b>The after party:</b> participant driven networking	Zoom Meeting ID: 993 1054 3653
All day	<b>Would like to eat...</b> in celebration of virtual conference catering	Twitter #CK2Online

# 3MT

The Three Minute Thesis (3MT<sup>®</sup>) is a competition developed by the University of Queensland which challenges doctoral students to deliver a compelling spoken presentation on their research topic and its significance, in just three minutes. A judging panel will be scoring entrants on two key criteria: 'Comprehension & Content'; and 'Engagement & Communication'. As well as winning a prize of £250 towards attending an academic conference of their choice, the winner will be put forward as Sheffield Hallam University's entry to the UK national 3MT<sup>®</sup> competition taking place at the Vitae Conference in September.

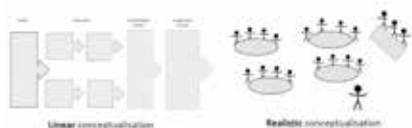




# 3MT Presenters

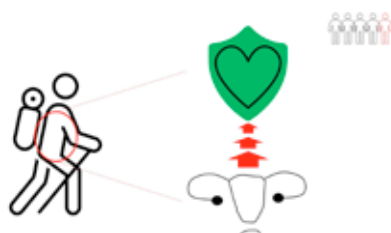
The Sheffield Hallam University Three Minute Thesis finalists for 2020 are:

Competitive Enterprise Education  
Catherine Brentnall, Sheffield Hallam University



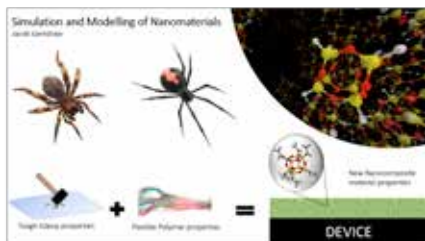
Catherine Brentnall  
Social and Economic Research Institute

## Competitive Enterprise Education



Amie Woodward  
Sport and Physical Activity Research Centre

## Movement Matters: Exercise to Reduce Cardiovascular Disease Risk in Polycystic Ovary Syndrome



Jacob Earnshaw  
Materials and Engineering Research Institute

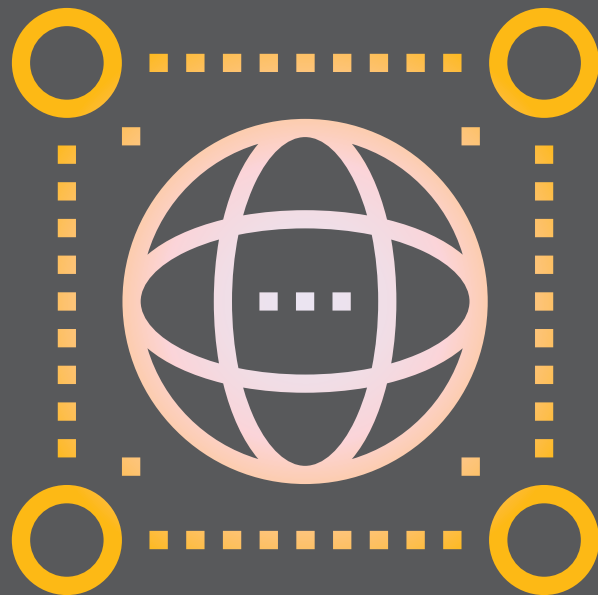
## Simulation and Modelling of Nanomaterials

# Future Economies Platform

## Session chair



**Dr Jonathan Bridge**  
(Reader in Environmental  
Geoscience)



The Future Economies Platform recognises that existing economic models and structures are undergoing profound and potentially seismic changes. Such change comes from technological development, not least the much heralded Fourth Industrial Revolution, but also in the interplay between the economy and a whole host of developments including: energy supplies, climate change, new forms of economic organisation and the future of work. These sessions of the conference will include presentations from academics with a focus on: developments in the production processes and outcomes of rice milling; opportunities for the transformation of organic matter into bioenergy; insights into the Real Living Wage (RLW) in the context of football club employment; developing tribocorrosion resistance to support industry efforts to recycle water and waste.

## Rice milling – enhancing food processing for the world

**Alex Bota, Beth Newton, Xinjun Cui and Martin Howarth**  
**National Centre of Excellence for Food Engineering**

Rice is a major food source for the world, particularly in Asian countries. Rice delivers up to 40% of the world's nutrition and supports family income and engagement across individual communities and society. Rice milling techniques have evolved significantly in recent years; however, many process variables remain poorly defined. Key parameters which have significant influence on rice milling performance are defined by the particle dynamics of the rice grains inside the milling chamber. Specifically, the flow dynamics of rice grains as they move vertically down through the milling machine, as they interact with each other and with the milling belt, all of which have significant impact on the operating efficiency and output quality. The variables include the particle distribution throughout the chamber, pressure differences and particle to geometry collision profiles.

Utilising the discrete element method (DEM), and its ability to precisely model granular flows across a range of industrial sectors and many powder flow applications, a simulation of rice milling is developed. The EDEM™ platform is used to model and simulate a range of experimental conditions. Early results and analysis will be presented and validated using calibration models and practical measurement methodology. The findings provide better understanding of the dynamics of the rice during milling and enable the optimum milling variables and machine conditions to be accurately defined. Using quantitative and measurable parameters in real time processing, the quality of milled rice will be optimised whilst also increasing the efficiency of the machine and minimising waste by-products.



I am Alexandru Bota and have been a student at Sheffield Hallam University since 2017, originally from Romania. Being currently on level 6 of my course, I undertook a 6-month placement as a foundation for my Bachelor's dissertation project. I was given the chance to be part of the student research team at the National Centre of Excellence for Food Engineering. I have also developed my engineering knowledge through other internships, including a biscuit manufacturing company and a beef processing plant. Another project I have proudly been involved in here at Sheffield Hallam University is the Mentoring Scheme, namely Culture Connect.

## Does low confidence reduce success rates of adult learners studying GCSE Mathematics in Further Education (FE) colleges? Some outcomes of the pilot study.

**Jenny Stacey**  
**Sheffield Institute of Education**

My main research project is designed to collect and compare information on the changing perceptions of adult learners studying GCSE mathematics in FE colleges. These learners are re-entering education, often after a break of some years, and usually with an extrinsic motivation, such as an Access to Higher Education or degree course, entry to which requires a grade 4 or better in GCSE Mathematics. The study also aims to compare learners' grades in their final exams, to see if there is a correlation between the confidence learners perceive, and their success rates.

The research design is a mix of quantitative and qualitative methods, in order to gain a broad understanding of the experiences of adult learners. The pilot study involved testing an information letter, consent form and questionnaire with a small group of approximately 20 students. It was highly informative for the main research phase.

Please note: Jenny will not be presenting her work live at the conference but please contact her afterwards if you are interested to find out more.



Jenny works part time in a Further Education college in the UK, delivering GCSE Mathematics to adult learners with and without first language English skills. Her research interests include the language of mathematics, and maths and exam anxiety. She has a Master's Degree in Education from Sheffield Hallam, and is currently on a part time Doctorate in Education, also at SHU.

## Energy-Efficient waste and wastewater treatment: A working biorefinery

**Mukesh Goel**

**Department of Engineering and Mathematics**

Kitchen waste is defined as left-over organic matter from restaurants, hotels and households. Large amounts of kitchen waste are produced daily in both rural and urban areas. If untreated at the source, it may enter the mixed-municipal waste system. These are difficult to be degraded by standard means, such as incineration, due to the high moisture content. Furthermore, organic matter can be transformed into bioenergy such as biogas. The present proposal addresses the kitchen waste treatment in an eco-friendly manner with simultaneous generation of biofuel and biogas. The biogas contains CO<sub>2</sub>, which leads to reduction in calorific value and hence process is not so efficient. However, CO<sub>2</sub> can be a substrate for algal cultivation, which has the potential to be 3rd generation biofuels.

An integrated approach will be more effective in harnessing the bioresources and energy present in organic wastes. This will take care of community health, increases awareness, and also provides rural employment. The data generated in this work can also be applied in other high polluting wastes such as leachate and so on. There are many challenges associated with this project. One could be maximizing biogas generation, and other one could be maximizing biogas enrichment using algal pond. Many co-substrates can be added along with the kitchen wastes to increase the biogas generation.



Dr Mukesh Goel has done his M.Eng in Chemical Engineering from NUS Singapore, and PhD from IIT Delhi (in collaboration with University Lyon1 and INSA Lyon, France). He is working as a Senior Lecturer in the Department of Engineering and Mathematics, Sheffield Hallam University. His research areas include the treatment of wastewaters and generating bioenergy. His experience includes ten years of teaching & research experience and two years of industrial experience. On the publication side, he has 29 international journal papers, 26 conference papers, four book chapters, etc. Besides, he has written nine technical reports for industries and has worked in three funded projects.

## Progressive real living wage employers in UK football clubs-The Case of Luton Town

**Peter Prowse**

**Sheffield Business School**

This research uses qualitative case study of Luton Town one of the few progressive employers in UK professional football clubs choosing to pay low paid staff a voluntary Real Living Wage (RLW) and become accredited employers with the Living Wage Foundation (LWF). Most football clubs, including the richest like Manchester United, refuse to pay staff a RLW. But, a minority of clubs are showing active agency and labour market leadership by paying the RLW, claiming it is the right thing to do morally and ethically, and also implying that being a responsible employer may have business benefits. There is academic knowledge about Living Wage policy and practice (Linneker and Wills, 2016; Prowse and Fells, 2016; Prowse et al, 2017). But there is no research on the Living Wage in the context of football.

The research addresses this research gap by exploring the RLW in UK football clubs. Our research raises ethical issues because, of 92 clubs in the English Football League and Scotland, only eight - Chelsea, Everton, Liverpool, West Ham, Luton Town, Derby County, Celtic and Hearts - are accredited with the LWF to pay all lower-paid directly employed staff, and external contractors and agency staff, at least the voluntary RLW.



Peter Prowse is the Professor of Human Resource Management and Employment Relations. His interests are human resource management, global employment relations, global negotiation and management, the living wage and public sector management. He is currently researching into the living wage in Football, Living wage for non-footballers in Premier League Clubs and Living wage campaigns for low paid workers in football clubs. Peter is also interested in gender in employment and leadership and mentoring senior women in UK sports sector. He was recently awarded a British Academy/Leverhulme grant to study the ethics of living wages for low-paid staff in UK professional football clubs with Professor Tony Dobbins of Birmingham University.

# HIPIMS deposited nanoscale CrN/NbN multilayer coating for tribocorrosion resistance

**Yashodhan Purandare, Gary Robinson, Arutiun Ehiasarian and Papken Hovsepian**  
**HIPIMS Technology Centre, Materials and Engineering Research Institute**

Recycling equipment (waste/ sea water/ chemicals) need high tribocorrosion resistance. In this work High Power Impulse Magnetron Sputtering technique deposited nanoscale CrN/NbN multilayer coating was explored for resistance against tribocorrosion phenomenon. Sliding wear-corrosion experiments were performed on a modified pin-on-disk apparatus. Concurrently, abrasive slurry particle erosion experiments (erosion-corrosion) were also performed under corrosive atmospheres. Results revealed that coated substrates exhibited lower corrosion currents (by a factor of 3) and high sliding wear-corrosion resistance ( $KC = 1.1 \times 10^{-14} \text{ m}^3\text{N}^{-1}\text{m}^{-1}$ ) as compared to a hard uncoated M2 High Speed Steel (HSS) specimens.

Slurry erosion-corrosion experiments confirmed that HIPIMS coatings outclassed uncoated HSS specimens as well as traditional magnetron sputtered deposited CrN/NbN coatings. This superior behaviour was a result of superior coating microstructure, which had an excellent adhesion to the substrate as well as was dense and defect free. Flat, well-defined hard nitride nanolayers and the unique nanoscale layer-by-layer wear mechanism without delamination led to the superior tribo-corrosion resistance.



Dr Yashodhan Purandare joined Sheffield Hallam University in 2006 and works as a Research Fellow in the National HIPIMS Technology Centre based in MERI, College of BTE. A metallurgist by profession, he specialises in various aspects of development of PVD coatings by magnetron sputtering and HIPIMS. He has a keen interest in the development of functionality enhancing engineered surfaces and their characterisation using various techniques such as SEM/TEM, AFM, XRD, TG, nano-indentation and spectroscopy. His research areas cover broad aspects of tribology (wear), tribo-corrosion (wear + corrosion), erosion-corrosion and high temperature oxidation analysis of bulk metals, alloys and coatings.

# Thriving, Inclusive Communities Platform

## Session chair



**Dr Gill Adams**  
(Reader in Education)



The Thriving, Inclusive Communities Platform aims to draw together and stimulate research across traditional disciplinary boundaries in response to major societal challenges at local, national and global levels. The last decade has seen the concept of a progressive and equitable development of society come under threat. At the same time, our understanding of society has never been stronger, and the opportunities afforded by new technologies and new social dynamics allow us to re-imagine and re-establish the basis for Thriving, Inclusive Communities. These sessions of the conference will include presentations from academics with a focus on: changing relationships with home heating; shared usage of public space and the introduction of Public Spaces Protection Orders (PSPOs); opportunities for marginalised communities to reflect themselves in media discourse and class-based distinctions in narratives of healthy eating.

## From tangibility to obscurity? Understanding our changing relationship with home heating in Northern Europe

**Aimee Ambrose; Steve Parkes and Jenny Palm (Lund University)**  
**Centre for Regional Economic and Social Research**

In higher latitudes, humans are deeply attached to heating and associated infrastructure. Its significance as a source of comfort, aesthetic experience, nostalgia and sense of place is underestimated (Ong, 2012). This paper seeks to combine a review of existing sources with emerging data from an Anglo-Swedish research project to explore the pivotal role of heat in our everyday lives revealing intersections with housing, health, political allegiances and ideology, gender politics, economic restructuring, social relations; educational outcomes and so forth. A key aim of the paper is to 'flesh out' grand narratives about our heating histories, providing more granular insights into our changing relationship with home heating during the second half of the 20th century and early 21st.

We will explore how heating transitions have played out in the everyday lives of 'ordinary' people across place and time and how they have made societal, economic, cultural and political change manifest in the heart of the home. We argue that that the heating transitions we have undergone in this period have brought us to the point where energy suffers from a 'double invisibility' in our lives, in the sense that it can often no longer be seen nor connected to our everyday actions (Hargreaves et al, 2013), militating against urgent efforts to reduce energy consumption (Ambrose, 2019). We go on to explore how first hand encounters with heat production might offer opportunities for embodiment and for re-connecting citizens with their energy consumption.

Please note: Aimee will not be presenting her work live at the conference but please contact her afterwards if you are interested to find out more.



Dr Aimee Ambrose is a Reader in Energy Policy at CRESR. She has been researching issues around domestic energy use, fuel poverty and energy justice for the last 12 years. Her research is primarily concerned with reducing the environmental impact of domestic energy consumption. She has explored these issues in the UK, New Zealand, Australia and Sweden and has published 19 peer reviewed articles on these topics. Her recent interests include the concepts of environmental citizenship and energy invisibility and the idea that the invisibility and intangibility of energy in our everyday lives may militate against citizen engagement in our energy futures. She currently acts as Chief Scientific Advisor to the International Energy Agency in relation to hard to reach energy users.

## Investigating the introduction of Public Spaces Protection Orders

**Benjamin Archer**  
**Sheffield Institute for Policy Studies (SIPS)**

Public Spaces Protection Orders (PSPOs) are an anti-social behaviour (ASB) measure introduced through the Anti-Social Behaviour, Crime and Policing Act 2014. These orders are introduced by a local authority against a designated public space, containing prohibitions and requirements for all users of the space concerned. The literature on PSPOs, largely doctrinal and quantitative, has focused on the number of PSPOs in operation. Further concerns have been raised about the broad nature of PSPOs; the potential to target behaviours commonly associated with vulnerable groups of people, such as young and homeless people. This research employs a qualitative approach to understanding the introduction of PSPOs, through the adoption of a multiple-case study model.

This approach included identifying three case study PSPO areas through a strict sampling criteria and conducting semi-structured interviews with local authority employees and police surrounding their involvement in the introduction of a PSPO. In doing so, this provides the first empirical contribution to knowledge surrounding PSPOs; provides a qualitative account of the implementation process, going some way in addressing concerns surrounding the thresholds considered in introduction, the consultation process and the way in which a PSPO is enforced following introduction.



After achieving a First-Class Law Degree, Ben was successfully recruited on a joint SIPS and Doctoral Training Alliance funded PhD scholarship focusing on the introduction of Public Spaces Protection Orders, both studied at Sheffield Hallam University. Ben's research interests lie in anti-social behaviour, class, exclusion, and notions of place and space. Ben has also acted as a student research assistant on several projects examining the use of public spaces and self-efficacy for students in higher education. As a Graduate Teaching Assistant, Ben has also had experience teaching on the Introduction to Law and Practice and Family Law and Practice modules.

## The Power of Zines: Community DIY and Beyond

**Chella Quint**

**Lab4Living**

Chella Quint has coordinated Sheffield Zine Fest since 2013 and regularly uses zines to engage with the public, with students and with colleagues. She believes that anyone can make a zine, and everyone should try. What's a zine? Pronounced 'zeen' like maga-zine, it is a booklet that you make yourself and give away, swap, or sell. What's the point? To turn the publishing world into your world - to share your knowledge, experiences or politics in a way that's more tangible than blogging, and less commercial - and more immediate - than traditional print media. Zines are also a way for marginalised communities to reflect themselves in the media discourse. As education becomes more equitable and new technologies allow artists and lay people to access sophisticated design and distribution methods, DIY publishing has become a viable and valuable way to engage and connect.

In this participatory talk, Chella will begin with a whirlwind tour of how she uses zines in data collection, non-hierarchical co-design, inclusive public engagement, and to measure impact. She will then share a brief case study of how a 24-hour zine challenge ended up impacting national and international policy, and will conclude by guiding participants through the process of creating their own A4 mini-zines to keep at home, scan and share, contribute their creations to an online zine library, or start one here at Sheffield Hallam.



Chella Quint is a Brooklyn-born, Sheffield-based artist, designer, writer, performer, and educator. She coined the term 'period positive' to describe the zeitgeist of her zines, art and craftivism which she developed into a well-known menstrual literacy campaign. Chella has published *Adventures in Menstruating* and a number of other zines since 2005 and frequently writes for national print media. She has recently joined Lab4Living's 100 Year Life Project as a doctoral researcher using design fictions to explore the impact of time narratives on life choices as we age. Her zines are archived in a number of international libraries.

## Healthy eating, social class, and ethnicity: exploring the food practices of South Asian mothers.

**Punita Chowbey**

**College of Health, Wellbeing and Life Sciences**

The diets of South Asian populations are of particular concern due to poorer health outcomes associated with food intake. However, this concern has not been translated into a high-quality evidence base and evidence is often small scale and sometimes contradictory. The influence of social class on South Asian food practices is particularly neglected in the literature. This paper draws on Bourdieu's exposition of class as a structured and structuring micro-practice and adopts an intersectional paradigm in exploring the narratives of thirty five mothers from diverse socioeconomic, ethnic and migration backgrounds regarding their healthy eating practices. These mothers are both first and second-generation migrants with dependent children from two South Asian groups: Pakistani Muslims and Gujarati Hindus, living in five cities of the UK.

The findings show class-based distinction in narratives of healthy eating involving symbolic and social value of food but not eating practices which were often influenced by time and resources. The paper argues for a reconsideration of how cultural capital is conceptualised and enacted in context of healthy eating and challenges the assumption that South Asian food practices are class-neutral, static and unhealthy and that healthy eating messages and initiatives will therefore engender transformative change.



Punita Chowbey is a Research Fellow in the Department of Social Work, Social Care & Community Studies. Her research is concerned with health inequalities, race/ethnicity, household economies, economic abuse, food (healthy eating, eating disorders and food allergies); community engagement and parenting in the UK and South Asia. Her current research is exploring issues of economic justice for women; women's employment and wellbeing; and food allergies. Prior to moving to academia, Punita worked for a number of national and international NGOs in India and the UK including CARE India and Panos (London).



# Healthy, Independent Lives Platform

## Session chairs



**Dr Simon Choppin**  
(Reader in Physical  
Activity and Health)



**Dr Hilary Piercy**  
(Reader in Nursing and  
Midwifery)



The Healthy, Independent Lives Platform aims to facilitate and encourage research that dissolves traditional disciplinary boundaries and responds to the global challenge of the ageing population. From conception to old age, the opportunities to improve and sustain health and independence through cultural and technological changes are immense, including environment, infrastructure and transport not just healthcare services. These sessions of the conference will include presentations from academics with a focus on: the enhancement of the performance of biomedical implants through surface modification of multilayer coatings; the potential of lullaby as a 'zero-cost' service intervention to reduce adolescent maternal and neonatal deaths; the development of a fully autonomous resilient home; using 3D imaging and geometric morphometric methods to develop sophisticated body shape measurement methods.

## Surface modification of CoCrMo alloys using CrN/ NbN and TiN/NbN nanoscale multilayer coatings deposited by high power impulse magnetron sputtering

**Arunprabhu A. Sugumaran, Yashodhan Purandare, Arutiun P. Ehasarian and Papken Eh. Hovsepian**

**Materials and Engineering Research Institute**

CoCrMo alloys have been widely used for biomedical applications such as knee and hip replacement joints due to their excellent biocompatibility, mechanical and corrosion properties. However, the major drawback of using these alloys is the release of toxic, carcinogenic Cr and Co elements due to tribo corrosion. It has been reported that the performance of these implants can be enhanced by depositing a suitable monolithic or multilayer coatings. The aim of this work was to investigate the mechanical, tribological and corrosion behaviour of CrN/NbN and TiN/NbN nanoscale multilayer coatings deposited on CoCrMo alloy. Combined HIPIMS/DCMS technique was used for the deposition to take advantage of highly ionised metal rich HIPIMS plasma without compromising the deposition rate.

An industrial size Hauzer HTC 1000-4 system enabled with HIPIMS technology was used for the deposition of the coatings. X-ray diffraction technique was used to calculate the texture and bilayer thickness of the coatings. Microstructural analysis using scanning electron microscopy showed that these coatings are extremely dense without any intercolumnar voids. CrN/ NbN multilayer coating showed better adhesion, nanohardness, tribological properties, corrosion resistance and fatigue resistance as compared to the TiN/NbN multilayer coating.



Dr. Arunprabhu Arunachalam Sugumaran has been part of National HIPIMS Technology Centre as researcher after completing his doctoral studies at Sheffield Hallam University. He has been involved in the development of monolithic/nanoscale multilayer thin film coatings using high power impulse magnetron sputtering (HIPIMS) for various applications such as biomedical, hard, wear resistant and decorative. He has huge experience in surface analytical techniques such as X-ray diffraction analysis, scanning electron microscopy, atomic force microscopy, tribological analysis, Raman analysis, nanohardness test and corrosion test.

## Life-Saving Lullabies: Reducing adolescent maternal and neonatal deaths in Zambia

**David Swann**  
**Art and Design**

Ethnomusicological studies have found that singing lullabies reduces prenatal stress and anxiety in mothers, promotes maternal attachment and improves the cognitive development of the unborn child. Until this study, the use of lullaby as a creative tool for imparting critical health information has been overlooked. In May 2019, President Edgar Lungu declared maternal and prenatal deaths in Zambia a Public Health emergency- with 10-15 women per week losing their lives due to preventable causes. Funded by a AHRC GCRF Urgent Grant, this study, in partnership with the University of Huddersfield and St John Zambia investigates the potential of lullaby as a 'zero-cost' service intervention to reduce adolescent maternal and neonatal deaths in Lusaka, Zambia. Ethnographic research at three health clinics investigated the activities of frontline Maternal Child Health teams (MCH) and captured the lived experiences of expectant mothers through focus groups and interviews.

Research findings revealed a local live-birth rate of 75-85%; groups of mothers sang gospel songs while waiting; the health benefits associated with singing lullabies was not widely known and ante-natal information is often communicated via hand written posters or verbally due to the cost of printing leaflets. Stakeholder workshops with MCH teams and mothers have prioritised critical messages to underpin the development of new lullabies to support the transitioning of adolescent mothers into motherhood and to empower them to take a positive actions to improve health outcomes: family planning, awareness of danger signs, good nutrition for a healthier baby and clinic attendance for a safer delivery.



David is a Professor in Design and Research Lead for the Department of Art & Design. He is a double graduate of the Royal College of Art (MDes-1991 and PhD- 2011). His research is grounded by frugal innovation and global healthcare challenges.

In 2014, David won the World Design Impact Prize with the ABC syringe. In the same year, he participated in the UK's inaugural GREAT Festival of Creativity, an international exhibition showcasing the best of British innovation. David's research outputs can be found in the permanent collections of the London Science Museum, The Design Museum and the MUDAC.

## Development of a Sustainable, Resilience 'Self Build' Home for a Zero Carbon Future

**John Grant**

**Natural and Built Environment (Real Estate)**

This research outlines the ongoing project to develop a fully Autonomous Resilient Home (in Scotland). This research investigates the technical and social challenges in the construction and living in a home that is completely "off grid" being autonomous in; food, water (collection and sewage treatment) and energy, all within a "Dwellinghouse". The key aspect of the design is one that requires the engagement of the occupier but does not include a compromise in the quality of life of the residents. In fact a case is made that there are both physical and mental health benefits in this strategy for domestic dwelling development.



John Grant is a senior lecturer in Sustainable Construction and Climate Change. His research areas include renewable Energy, sustainable Building design, Climate Change, Environmental and Water Management (capture, storage and flood mitigation). He is an academic adviser on the Green City Partnership Board on sustainability strategies and climate change, as well as a regular contributor to the BBC Radio Sheffield 'Ask the Expert' slot commenting on Environmental Issues.

## Investigation of shape-based digital anthropometry for assessing external human form

**Michael Thelwell, Alice Bullas, John Hart, Jon Wheat, Simon Choppin**  
**Centre for Sports Engineering Research**

There exists a wealth of untapped information regarding external human form and what it can tell us about our internal body composition and physical health. However, manual anthropometric techniques currently used in practice are limited to simple measures of body size, which do not describe the complex three-dimensional variations in human shape. Three-dimensional (3D) imaging systems capture detailed and accurate measures of external human form with potential for use in health applications. However, previous studies utilising 3D imaging have only assessed body shape based on ratios and relative proportions of size measurements. Though large numbers of size measurements can be rapidly obtained, this approach discards the vast majority of the information acquired by 3D imaging systems which describe external human form.

Geometric morphometrics is an established method within the fields of anthropology and evolutionary biology to analyse relationships between the size and shape of organisms within populations. The aim of my PhD research is to determine how sophisticated body shape measurement methods, using 3D imaging and geometric morphometric methods can complement existing anthropometric techniques in the assessment of external human form. The findings of my research suggest that improved specificity of body measurements, which identify distributions of mass around the body, in addition to measures of body size can enable more comprehensive assessment of variations within the population. Future research should investigate relationships between external human form and internal bodily function, as well as the development of tools to improve the diagnostic and predictive capabilities of measures used in healthcare.



Michael Thelwell is a final year PhD student at SHU and is part of the Human Morphology Research Group, which uses 3D imaging technology to understand how shape and size influences health and performance. His research aims to determine how body shape measurement can complement existing anthropometric techniques in the assessment of external human form. During his PhD he secured funding to work with collaborators at the University of Leipzig and analysed their dataset of over 10,000 body scans and has co-authored two journal publications.

# Spotlight on Early Career Researchers

This session will focus on how the Creating Knowledge Implementation Plan (CKIP) Chancellor's Fellowship initiative has supported some of our early career researchers by providing time and financial support to enable them to focus on developing their research careers. Four of our Chancellor's Fellows will talk about their research and share their thoughts about the impact of the initiative on them.

You can find their pre-recorded presentations on the conference site along with links to further details of their research, key publications and contact details. A live Q&A session, facilitated by Professor Steve Johnson, from 10.00 to 11.00 on Friday 12 June will provide an opportunity for colleagues to learn about how to make the best of the opportunities available at SHU.

This session will be of particular interest to early career colleagues who would like to learn more about how to win and make the most of small career development grants, for example negotiating the application process, building networks around your research interests, gaining support and recognition from your colleagues and applying for further grant funding / fellowships.





**Facilitator**  
**Professor Steve Johnson**

Professor Steve Johnson is Associate Dean for Research and Innovation in the College of Business, Technology and Engineering at Sheffield Hallam University. He is an applied economic and policy researcher with interests in entrepreneurship, skills and economic development. His most recent work evaluated the impact of business school research on external stakeholders.

**Featured Chancellor's Fellows**



**Dr Tom Ostler**

Dr Tom Ostler is a Senior Physics Lecturer in the Department of Engineering and Mathematics. He completed his PhD in 2012 at the University of York where he also worked as a postdoctoral research associate until 2014. Subsequently, he worked at the University of Exeter and then as a Marie Curie Fellow at the University of Liège, Belgium. Tom is a theoretical physicist specialising in the development and use of computational methods and codes to describe, predict and understand the properties of magnetic materials in condensed matter, particularly for applications in next generation data storage and processing devices.



**Dr Nicola Aberdein**

Dr Nicola Aberdein is a Senior Biomolecular Science Lecturer in the Department of Bioscience and Chemistry. She gained her PhD in Biological Science in 2014 from Heriot-Watt University, Scotland, before moving to the United States to undertake a three year postdoctoral research post at the University of Mississippi Medical Centre, Jackson, MS. Dr Aberdein's research revolves around the role of obesity related hormones on bone remodelling. Specifically, the morphometric changes to bone microstructure in response to hormone sensitivity during obesity; and investigated using state of the art non-destructive micro-CT imaging technology.



**Dr Sarah Forbes**

Dr Sarah Forbes is a senior lecturer in microbiology and the course lead for the MSc in Biomedical Laboratory Sciences in the department of Biosciences and Chemistry. She completed her PhD in 2012 at The University of Manchester where she subsequently worked as a research associate. Her research is focused within the fields of antimicrobial chemotherapy and microbial ecology, with an interest in developing anti-infective coatings to prevent catheter-associated urinary tract infections. Sarah works on a number of scientific outreach initiatives and is currently working in collaboration with Museums Sheffield to bring awareness of infection and antimicrobial resistance to the wider community.



**Dr Katie Shearn**

Dr Katie Shearn is a researcher based in the Department of Nursing and Midwifery and co-located in the Advanced Wellbeing Research Centre. Katie completed her PhD at Sheffield Hallam University on a Faculty Scholarship in 2018. She is a methodologist with expertise in realist approaches. Her focus is on developing methods to accumulate knowledge about whole systems approaches to promote population health and wellbeing. She is currently advising and working on a variety of applied research and evaluation projects to enable active lives supported by Sport England, in South Tees, Greater Manchester and Sheffield.

# Research Cluster Workshops

The Sheffield Hallam University Creating Knowledge Implementation Plan has provided funding support for the development of inter-disciplinary research clusters. We have four interactive workshop sessions drawing on the work of research clusters as part of the conference. This is intended to showcase and share examples of collaborative research activities with opportunities for active engagement.

## Conversational AI for sport, physical activity, health and wellbeing

**Richard Moore**

**Platform(s): Enabling Healthier Lives & Driving Future Economies**

Conversational Artificial Intelligence (AI) refers to the use of messaging apps, speech-based assistants and chatbots to automate communication and create personalised conversational experiences at scale. Messaging and speech-based platforms are rapidly displacing traditional web and mobile apps to become the new medium for interactive conversations. This has led to growth in chatbots being deployed particularly by organisations in healthcare to provide services to patients. The COVID-19 pandemic has accelerated this shift with organisations such as the NHS launching a Chatbot to provide information to the public during the pandemic.

The research cluster aims to lead on the research and design of world leading evidence based conversational AI in sport, physical activity and health, to help solve global challenges. The workshop will provide an introduction to Conversational AI, discuss current research activities, and demonstrate the COVID-19 Sport Bot designed by the Sport Industry Research Group to support sport organisations during this challenging time.

### Research Cluster Team:

Richard Moore, Sport and Physical Activity Research Group  
Susan Wakefield, Nursing and Midwifery  
Dr Alessandro Di Nuovo, Department of Computing  
Ryan Storey, Sport Industry Research Group

## Sheffield Hallam Appetite Research Cluster (SHARe)

**Jenny Paxman and Caroline Dalton**

**Platform: Enabling Healthier Lives**

The prevalence of overweight and obesity is rising at an alarming rate across the globe yet malnutrition and underweight also remain a significant public health challenge in both developing and developed countries. The multifactorial and complex social, political, economic and biological reasons for this are subject to extensive scrutiny by leading scientists and social scientists yet, they persist. Both under- and overweight are associated with significant co-morbidities, poorer health outcome and premature death as well as considerable economic cost at a societal level. Consumption, at least relative energy intake, is only part of the story but what, why and how we eat (and drink), and understanding the relevant biology, psychology and social drivers for this, is crucial for researchers in this field.

This workshop will explore a range of research methods relevant to the study of human appetite, eating behaviour, feeding and weight management (including underweight and overweight). We will consider data collection methods and important control measures alongside capacity (facilities and expertise) at SHU to undertake this type of work and will introduce you to Sheffield Hallam Appetite REsearch Cluster (SHARe). This workshop is open to all researchers (academics and research students) from any discipline with an interest in consumption, eating or drinking behaviours, energy balance, weight management or any associated area.

### Research Cluster Team:

David Broom, Academy of Sport and Physical Activity  
Steve Brown, Psychology  
Caroline Dalton, Biomolecular Sciences  
Rachel Marsden, Psychology  
Tony Lynn, Food and Nutrition  
Jenny Paxman, Food and Nutrition  
[blogs.shu.ac.uk/sharecluster](https://blogs.shu.ac.uk/sharecluster)

## Contemporary Legend Research Cluster

**Dr David Clarke, Diane Rodgers, Andrew Robinson and Sophie Parkes-Nield**

**Platform(s): Driving Future Economies & Building Stronger Communities**

The Centre for Contemporary Legend (CCL), a research group based in SSA/MAC, aims to create a UK institutional base as a focal point for all those working in the field of folklore and legend studies. Absolutely integral to this discipline is the examination of how folkloric traditions and behaviours develop and evolve and how they can reflect both national and communal identity. Folklore studies is more relevant than ever in the current national and global situation. The UK's decision to leave the European Union and the developing Covid-19 crisis have both brought forth significant changes at an unprecedented pace. In her March 2020 broadcast to the nation HM Queen referred to the need for the country to pull together and evoked a sense of national identity.

She suggested that new traditions and customs e.g. displaying rainbows and communal clapping were an expression of "our national spirit" that will help to define our future. How community customs continue to reproduce and evolve within this enforced period of physical separation can be viewed most effectively in the context of folkloric ritual, custom and practice. The fundamental societal shifts of today are the folklore of tomorrow and the CCL aims to capture, examine and share discussion of these phenomena with like-minded scholars via a variety of outputs.

### Research Cluster Team:

David Clarke, CCRC / MAC

Diane Rodgers, CCRC / MAC

Andrew Robinson, CCRC / MAC

Sophie Parkes-Nield, CCRC / MAC

CCRC = Communication and Computing Research Centre

MAC = Media Arts and Communication

[contemporarylegend.co.uk](http://contemporarylegend.co.uk)

[www.facebook.com/CCLSheffield](https://www.facebook.com/CCLSheffield)

## Transnational Popular Culture as a catalyst for social change

**Anja Louis**

**Platform: Building Stronger Communities**

Changing minds changes lives. Popular culture has enormous discursive power which creates meaning through storytelling and performance, and can thus be used as a political tool for social change. Major societal challenges at local, national and global levels such as multiculturalism, migration, security, health, neoliberalism and working cultures will be the focus of this research cluster. Analyses of these challenges requires multidisciplinary humanities-led collaborative ventures which examine the complex social phenomena of transnational identities. Arts and Humanities put the human at the centre of analysis and provide a methodological framework for cultural, social and economic critique. Social and economic benefits of this research are instrumental as well as intrinsic.

Raising awareness, creating knowledge and changing attitudes towards transnational cultures improves social and intellectual capital of individuals, social groups and organisations. Students will benefit from cognitive growth and greater cultural intelligence through Research-informed teaching. Relevance of popular culture involves elucidating its crucial relationships with other areas of knowledge, as well as making links between creative disciplines more often considered in isolation. This session will introduce the Research Cluster on Transnational Popular Culture as a catalyst for social change. We will give an overview of the work done so far and encourage anybody who has an interest in Transnational Popular Culture to join us.

### Research Cluster Team:

Anja Louis, CCMS / Dept of Management

Amy Wigelsworth, CCMS / Dept of Management

Ana-Maria Sanchez-Arce, Humanities Research Centre

Esther Johnson, Art and Design Research Centre

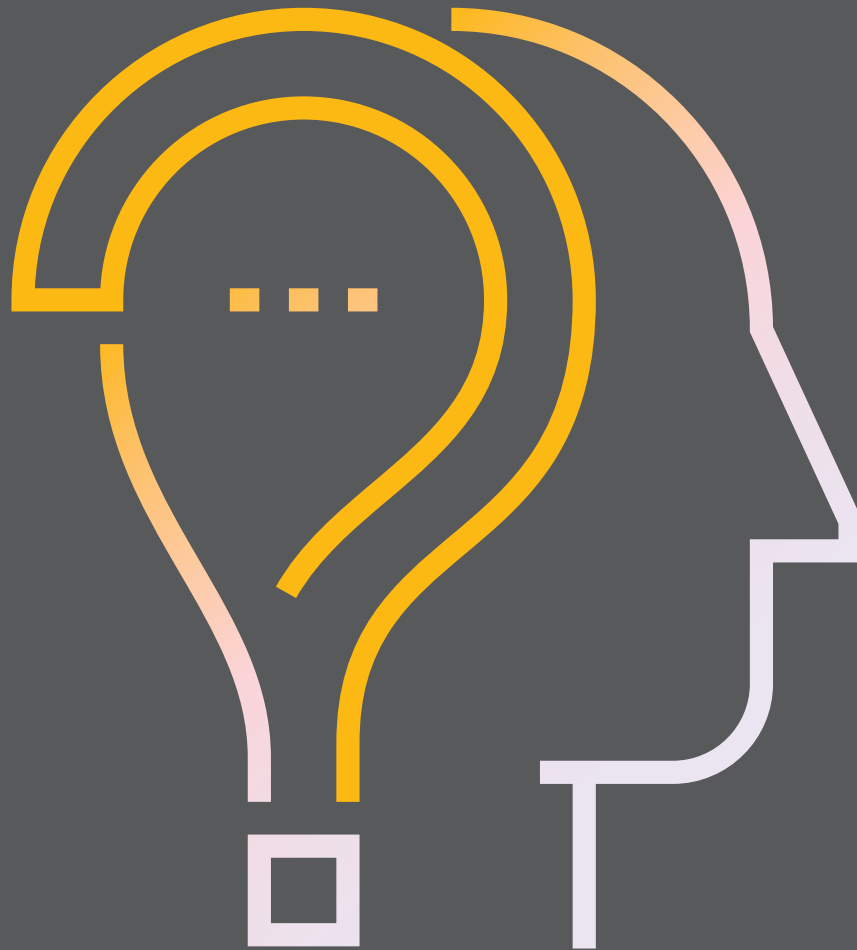
CCMS = Centre for Culture, Media and Society

# Question Time Panel

Sharing expertise and practice is an important part of building a supportive research environment. This event will follow a BBC Question Time format. It provides an opportunity for you to draw on the experiences of senior researchers at SHU.

This session will focus on three themes in the context of being a researcher:

- getting your first research grant
- peer reviewing
- avoiding procrastination.





Join us to discuss key themes and put your questions to a panel of SHU Professors from Arts and Humanities, Science, and Social Science:



### Professor Hora Soltani

Professor Hora Soltani leads the Maternal, Infant and Reproductive Health Research (MIReHR) theme including interdisciplinary researchers and PhD students in Sheffield Hallam University. She has been researching for over 20 years with a track record of over 100 peer reviewed publications and invited talks, being a section editor for BMC Pregnancy & Childbirth and advisor for organisations such as the World Health Organisation and Public Health England. Her research is of a collaborative nature with a global impact, focusing on care models reducing health inequalities for mothers and babies specifically related to maternal obesity, infant feeding, perinatal mental health, teenage pregnancy and migration.



### Professor Lisa Hopkins

Professor Lisa Hopkins has worked at SHU for 30 years and is Professor of English and a Head of Research Degrees. She is a co-editor of Shakespeare, the journal of the British Shakespeare Association, of Arden Studies in Early Modern Drama, and of Marlowe Studies. She works mainly on Marlowe, Shakespeare, and the Caroline dramatist John Ford, but she has also published on Jane Austen, Bram Stoker, detective fiction, and Bess of Hardwick, and has co-edited a collection on the literary cultures of the Cavendish family of Bolsover and Welbeck which will be appearing from Arc Humanities Press later this year.



### Professor Colin McCaig

Professor Colin McCaig is a Professor of Higher Education Policy in the Sheffield Institute of Education (SloE), with 20 years' experience in education policy research. Colin's research interests are in the area of inequalities of access to higher education which he approaches through critical analyses of policies concerning the marketisation of higher education. He is an experienced PhD supervisor and external examiner, and also as a journal editor, co-editing the Higher Education Review 2015-2019.

Upon registering for this session, you are invited to submit questions relating to the three themes in advance. A selection of these will be put live to the panel on the day by our host:



### Professor Wayne Cranton

Professor Wayne Cranton is Dean of Research at Sheffield Hallam University, leading the preparations for the SHU submission to the Research Excellence Framework 2021. His research is concerned with the study of thin film materials for electronic and photonic devices including light emitting, photovoltaic and sensor devices. This has involved collaborative applied research and development programmes on the deposition and processing of phosphors, dielectrics, and metal oxide semiconductors, with emphasis on the localised photonic processing of materials for low temperature functionalisation. His research into light emission for visual displays underpins his module on 'Vibrations, Waves and Optics' as part of the Physics degree programme at SHU.

# Leveraging community to build an inclusive environment

Many experts suggest that the disproportionate impact of COVID-19 on communities of colours\* is symptomatic of larger structural and institutional problems in our wider society. In our session, speakers Dr Loretta Ogboro-Okor and Nuzrath Mowlana will identify ways in which we can leverage community to build an inclusive environment across teaching and research at Sheffield Hallam.

Creating knowledge starts with a conversation and this session will introduce an academic initiative to open up new dialogue about race equality. There will be an opportunity to hear from student-staff groups in the Departments of Nursing & Midwifery and Allied Health and share practice on how we might develop more inclusive approaches to creating knowledge.

\*we use the terms communities of colours or African, Asian and Minoritized groups as alternatives to the problematic phrase BAME



## Speakers



### Dr Loretta Oduware Ogboro-Okor

Dr Loretta Oduware Ogboro-Okor, is a United Kingdom trained Obstetrician and Gynaecologist. She has been able to blend her work in the science field of medical practice with being an author, a passionate motivational speaker, women and youth health advocate and educationist as well as a social entrepreneur and an ardent blogger. She authored the amazing books 'My father's daughter' and 'Heartwebs' and set up the Loretta Reveals 'borderless motivational space' in 2015. She also co-founded the Ashanti Graham Health & Education Initiative Foundation (AGHEIF) in 2010, a charity with the vision '21st Century Health Care for Africa.' <https://lorettaogboro-okor.com>



### Nuzrath Mowlana

Nuzrath Mowlana is a Muslim faith advisor for Sheffield Hallam students and completed both her MBA and MA in Film and Media studies at SHU. Her experience is primarily in Teaching, Writing and Directing Films, plays, documentaries and songs. Nuzrath has provided consultancy and coaching in the sector of film, theatre and digital media and worked with a mixture of businesses. She also enjoys working with NEET youngsters and promoting entrepreneurship.

# SIPS Poster Showcase

The Sheffield Institute for Policy Studies (SIPS) invites you to its Fourth Annual PGR Poster Competition and Research Showcase, kindly sponsored by Oxford University Press, Palgrave Macmillan, Policy Press, Blackwell's and Emerald Publishing.

This multi-disciplinary event encourages postgraduate research students from across the University to develop a range of skills in a friendly and supportive environment, including communicating their research, responding to questions and feedback, developing their researcher profile, and developing their contact networks.

Students' posters will be available to view throughout the Conference. You are also invited to meet the students and discuss their research at the Poster Competition and Research Showcase when the prizes for the best posters from each category will also be announced.



**Jenifer Wall**

**Evaluating the impact of the NEMESIS Educational model**



**Zoe Rodgers**

**ASB victims' experiences of Community Protection Notices**



**Daniel Matthias Haid**

**Understanding the influence of helmet-layer characteristics on impact properties during compliant impacts**



Hannah Gilman

**The Subjective Post-Conviction Experiences of Whole Life Prisoners within England and Wales.**



Charlene Cross

**The Secret Life of Empty Buildings: The hidden activity involved in maintaining a site's 'inactivity'**

Ellen Johnson

**'The right to change religion, the experiences of apostates and the efficacy of UK law and policy, including hate crime, domestic abuse and coercive control'**



April Christina Murray Cantwell

**The escalation of crime control; examining the impact of state monitoring on asylum seekers, offenders and communities.**



Chella Quint

**It Bloody Ads Up! Quantifying and responding to the framing of shaming in the menstrual discourse**



Carina Skropke

**Community Ownership of Assets: Understanding growth in activity and its spatial distribution**

# Researcher Community Initiatives

There is a wide range of research community activities happening across the university that provide opportunities for researchers to connect across disciplinary boundaries. Here, we highlight some examples of the bespoke, participatory and researcher-led initiatives that contribute to the building of a supportive and innovative research environment and an inclusive and vibrant research community at Sheffield Hallam University.

## PhD Perspective Project

Led by former SHU PhD students, Ronak Janani and Alex Scrimshire, and supported by senior administrator Esther Lau in the Industry and Innovation Research Institute, this project is designed to provide guidance and support to current and future research students from the perspective of those who have recently gone through the experience. To date three videos have been produced: '[Our Viva Experience](#)', '[Remote Doctoral Viva](#)' and '[Our Remote Viva Experience](#)'.

## Doctoral Writing Feedback Group

The Writing Feedback Group is run by postgraduate students on a monthly basis and aims to provide constructive, but friendly, feedback in a relaxed and supportive atmosphere (we often share a cake to sweeten the session!). Two people usually submit 1 piece of writing each (approximately 2,000 words) a week before the session, and everyone in the group provides them with feedback on their chosen elements of their submission. During the sessions there is space to ask for clarifications or have informal discussions. Students have been submitting a variety of writing, including sections of articles, reports for supervisors, sections of chapters or conference papers. These regular sessions have been supplemented by Writing Retreat Days. Anyone is welcome to attend – please contact PhD Researcher/Associate Lecturer Katrina Fleming, based in the Sheffield Institute of Education, for further information on dates, locations and times.

## Disability Research Forum

A cross-universities initiative, that has thrived since its inception in 2005, the Disability Research Forum is now co-organised by Steph Hannam-Swain, a SHU PhD researcher in Education.

(<https://disabilityresearchforum.wordpress.com/about/>)

The research forum is an informal and 'safe' space for researchers to come together and talk about their research to an audience of like minded people. They give feedback, ask questions, or help researchers to think through issues that they are having. Although aimed at Early career researchers the organisers are hoping to encourage UG and Masters students to attend as well. They have speakers coming from all over the country and try to have two speakers per session which are monthly (ish) October-May. The forum also tries to be as accessible and inclusive as possible and suggestions for the future are welcome.

## Slip-up Stories and Critical Arts in Health Network

Led by Sarah Smizz, PhD researcher in Art and Design linked to Lab for Living, supported by PGR-led funding, Phuckuppery was established towards the end of the 2018/19 academic year as an early evening talk event series in Sheffield hoping to change the way we think and feel and talk about failures. To come out into the light and be seen, shame and failures and fears and all! And to unify and own these parts of everyday life. The initiative is founded on the hope that by sharing our vulnerability, we can change how we feel and think about failure. And in doing so create a community that is open and shares its research/practices in all of its wonderful ways, including all the juicy flaws. The initiative is designed to inspire others to take risks and follow their intuition, to challenge what is impact? what is success? what is good research? why not failure? and more. A Tumblr page - <https://phuckuppery.tumblr.com/> supports this initiative. Smizz also set up a Critical Arts in Health Network with Julie Walters and Debbie Michaels. They ran 4 events creating a critical and creative space to think about how research and practice in arts+design and healthcare can work better together <https://criticalahn.tumblr.com/>

## PHilmeD

PHilmeD is a film screening with a difference led by Sophie Negus, PhD student in the Centre for Regional Economic and Social Research (CRESR) and Ruth Squire (PhD student within Sheffield Institute of Education). The screening is hosted by a PhD student who selects a film which relates to their research, generally or on a specific element. Before the film, the PhD student introduces the film with a brief talk (10 - 15 minutes) on their research, how this connects to the film and finishes by posing a question to the audience to think about whilst watching the film. After the film, the discussion is opened up to the audience of SHU students and staff.

Currently PHilmeD has hosted 3 film screenings with more lined up in the future. The students have been from a range of disciplines. The events have been successful with positive feedback from both the presenters and audience. This event offers the opportunity to present to an audience who generally know very little about your subject area. The introductions have been engaging and so have the discussions after the film. By holding the discussion after the film, it is opened up to the audience and includes both reflections and questions on the film and talk.

## SIPS Post-Graduate Student Poster Event and Research Showcase

Doctoral researchers were awarded funding from both the Doctoral School's Researcher Led Activities Fund and the Sheffield Institute for Policy Studies to organise a poster event in 2017 to bring together researchers from the Departments of Law and Criminology; Psychology, Sociology and Politics; Natural and Built Environment; and the Centre for Regional Economic and Social Research. The event encouraged postgraduate research students to develop a range of skills in a friendly and supportive environment, including communicating their research, responding to questions and feedback, developing their researcher profile, and extending their contact networks. This year marks the fourth year of the event and you can join the SIPS poster session and talk to the students about their research as part of our #CK20online conference. The event provides a great example of a multi-disciplinary research initiative that has grown in strength and is now open to doctoral and masters students across the University. Now sponsored by Oxford University Press, Palgrave Macmillan, Policy Press, Blackwell's and Emerald Publishing, the event will showcase the work of nine post-graduate researchers united through their interests in research.

## Postgraduate Research Students' Society

The Postgraduate Research Students' Society organises social and academic events for current and prospective postgraduate students at SHU. Currently, face-to-face events are on hold, but they have previously included walks in the Peak District, pub socials, weekly writing groups and monthly coffee meet-ups. We have established a community in which postgraduate students can meet up with fellow postgraduates to share ideas and concerns, and enjoy some time out from academic life. Focus Thursday is where we work in blocks of 25 minutes with 10-minute breaks in between for chats and encouragement. After the session we meet on zoom for a little chat! Join us on Twitter every Thursday 10 am - 12 pm [@shsuprсс](https://twitter.com/shsuprсс). Coffee Catch Ups are also running online on the first Friday of every month between 10-11am. You can drop in whenever for a relaxed chat. Direct message on [@shsuprсс](https://twitter.com/shsuprсс) for the zoom link, or check your monthly newsletter from the society. Sign up here: <https://www.hallamstudentsunion.com/soc/prсс/>

## Humanities and Social Sciences PGR and ECR Conference

In August this year the Sheffield Hallam Students' Union (SHSU) Postgraduate Research Students' Society will present their fourth annual Humanities and Social Sciences postgraduate and early career researcher (ECR) conference: 'Earth(ly) Matters: Roots, Rebellions and Resolutions' (<https://shsuprссconference.wordpress.com/>). This event builds on the success of previous inter-disciplinary research conferences: 'Breakup: Separations, Estrangements, Disjunctions' (2017); 'Empowered: Agency, Authority, and its Limitations' (2018); 'Invisibility: The Absent, the Unseen, and the Forgotten' (2019). The annual one-day conferences are supported by the Doctoral School's Researcher Led Activities Fund and they encourage and celebrate the value of a grounded approach to the design, creation and delivery of inter-disciplinary researcher events.

## Peer mentoring for PGRs

The Doctoral Training Group brings together academic and professional services staff involved in the delivery of training initiatives aimed at PGRs. It promotes shared conversations about differences in training needs and cultures across all our research degree programmes and identifies ways in which we can work together.

One of the actions taken forward this academic year has been the development of a peer mentoring scheme for PGRs. This responds to the recommendations of a SHU Student Union PGR Student Wellbeing Research study (2018/19) in relation to building increased confidence and a sense of community across researchers. Following on from focus group research with SHU PGRs, a pilot scheme will be launched in July 2020 to offer a voluntary, networked model of peer mentoring led by the Doctoral School. This initiative sits alongside- and complements the work of the Hallam Guild-funded PGR Wellbeing Group.

## SHU PGR Virtual Café

In the spirit of the SHU Staff Random Coffee scheme where staff get matched to a colleague from another part of the University for a coffee (or beverage of their choice), the Doctoral School launched a similar offer for PGR students in April 2020. A shift to remote working prompted recognition of the value of provide opportunities to check in and connect with each other to strengthen a sense of SHU-wide PGR student community alongside the work of the SHU Postgraduate Research Student Society. This is an informal peer support scheme where new random pairings or matches are made every two weeks with flexibility - PGR students can sign up with the Doctoral School on a continuing basis and opt-out at any point.

## ECR Staff Network

A University-wide Early Career Researcher (ECR) Staff Network was established in 2018 by a subgroup of the Researcher Concordat Operations Group) to enhance our research community and provide support for those relatively new to research.

The SHU ECR Network provides opportunities for ECRs to:

- meet other ECRs across the University and benefit from peer support
- present their research and form multidisciplinary collaborations
- provide feedback on 'life as an ECR at SHU' - to support further development of Sheffield Hallam Researcher Development (SHaRD) activities

For the network, we are not using a strict definition of an ECR and invite all staff who are new - or returning - to research and want to engage with other active researchers.

A core group comprising representation from across the University, helps run events, promote the network locally, and channel communications to inform SHaRD and related SHU policy.

If you would like to get involved with the network or have suggestions for the type of activities and events you would find useful please get in touch via [shard@shu.ac.uk](mailto:shard@shu.ac.uk)



**Professor David Cotterrell**  
Director

## Culture and Creativity Research Institute

The Culture & Creativity Research Institute (CCRI) is the home of Arts and Humanities Research, Innovation and Enterprise. It hosts an extraordinary interdisciplinary community of established practitioners, world-leading academics, and dynamic research students. The Institute provides leadership for research that engages critically with contemporary societal and global challenges through the deployment of practice-led and culturally critical enquiries and methodologies.

CCRI unites the established strengths and the pioneering work of the Art & Design Research Centre, the Centre for Culture, Media & Society, The Humanities Research Centre and Lab4Living. The exceptionally diverse constituency of the institute includes artists, designers, film-makers, writers, technologists, archivists, theorists, historians and linguists. Researchers, clusters and centres within the institute have significant impacts within a wide range of debates including, the politics of representation, conflict, polarisation, sustainability, gender studies, post-colonial narratives, health and ageing.

Our research is facilitated through the following research centres:

- Art & Design Research Centre (ADRC)
- Centre for Culture, Media & Society (CCMS)
- Lab4Living (L4L)
- Humanities Research Centre (HRC)

The Institute co-ordinates knowledge exchange through:

- Design Futures and Impact VR

CCRI closely collaborates with the departments of:

- Art & Design
- Media, Arts and Communication
- Humanities

The institute serves to provide a shared platform to champion the value of creative practice, cultural theory and literary research in revealing new questions, addressing multi-disciplinary challenges and delivering societal impact.





**Professor Heidi Probst**  
Director

## Health Research Institute

The Health Research Institute (HRI) brings together academics and professionals who collectively deliver research, innovation and knowledge exchange in health and wellbeing across the lifespan.

We share expertise in health and social care, sport science, nutrition, engineering, economics, physical activity and behaviour change, biomolecular and biomedical science, data modelling, health policy, and art and design research. This inter-disciplinary community and portfolio of people, minds and skills produces highly adaptive, practical and creative solutions to existing and emergent local and global challenges facing individuals and society at large. We apply cutting edge methodologies to deliver evidence-based interventions that have an impact on people's lives.

Collaboration is the beating heart of the institute. We work together with external partners in health and social care, the public sector, industry, local communities and the third sector, working together to shape the future of health and wellbeing. The following research centres are directly linked to the Health Research Institute:

- Advanced Wellbeing Research Centre (AWRC)
- Sport and Physical Activity Research Centre (SPARC)

The Health Research Institute also works closely with researchers in departments across the University and the following research centres:

- Biomolecular Sciences Research Centre (BMRC)
- Lab4Living (L4L)

There are a number of ways you can engage with the Health Research Institute. You can engage through the research centres listed above or by engaging with your department research lead if you are a staff member in the College of HWLS. We have a sharepoint site for the Health Research Institute that includes news, events and links to activities, please contact Amanda Brothwell in the first instance if you would like access to the HRI sharepoint site. As the operational plan for the HRI is refined there may be further opportunities for engaging in staff development opportunities, these will be circulated via the HRI email distribution list. If your research area (or area of research interest) aligns with the HRI and you would like to be added to the HRI email distribution list please contact Amanda Brothwell so you can be added to these communications.



**Professor Andy Alderson**  
Director

## Industry and Innovation Research Institute

The Industry and Innovation Research Institute (I<sup>2</sup>Ri) draws on the talents, expertise, facilities and collaborative networks across the university. The vision is to be the leading provider of research excellence delivering applied materials, computing, science and engineering innovations meeting the development needs of current and future industries.

Our innovations are proactively providing solutions to key global challenges in the 21st-century: including Covid-19 response; secure and sustainable energy supply and management; developing smart, digital and low carbon technologies driving clean growth; meeting the demands of climate change; ensuring security of individuals, institutions and to international communities and their environments; and technologies meeting the needs of an ageing society.

These innovations are driven by academic staff and postgraduate research students in:

- Creating Knowledge Strategic Research Centres (the Centre of Excellence in Terrorism, Resilience, Intelligence and Organised Crime Research (CENTRIC) and the National Centre of Excellence for Food Engineering (NCEFE))
- Research Centres with long and distinguished track records of excellence (the Biomolecular Sciences Research Centre (BMRC) and the Materials and Engineering Research Institute (MERI))
- Departmental Research (Biosciences & Chemistry, Engineering & Mathematics, and Computing).

I<sup>2</sup>Ri provides support and leadership to build collaboration for growth in R&I income, quality and impact. This includes high level research staff development, and administration and academic leadership for research degree programmes. We are always looking to engage new researchers within the remit of I<sup>2</sup>Ri – if this is you then please get in touch via the I<sup>2</sup>Ri inbox for specific enquiries around I<sup>2</sup>Ri support: ! RIS Industry & Innovation Enquiries. Alternatively, email or phone Jane Wright (I<sup>2</sup>Ri Manager) or Professor Andy Alderson (I<sup>2</sup>Ri Director).



**Sarah Pearson**  
Director

## Social and Economic Research Institute

The Social and Economic Research Institute (SERI) is an interdisciplinary research institute committed to cutting edge, high quality and impactful research which addresses key social, economic and environmental challenges in the UK and globally.

Our work spans a wide range of themes including climate, adaptation and sustainability; social justice; law and crime; education; work and the economy; place and connectivity; and future services. Our academics bring expertise across disciplines which include behavioural science, economics, public policy analysis, statistics, social research and professional practice.

SERI aims to support the growth and promotion of first class social and economic research at Sheffield Hallam. As the Institute develops we will be working across the University to create new opportunities to engage in collaboration and the development of research and innovation ideas and projects, support the growth of vibrant PGR and ECR communities, and advance the development of researchers at all stages of their careers. We hope that you can get involved! You can contact us through the SERI inbox: ! RIS Social & Economic RI Enquiries. A sharepoint site is in development, and if you would like to be added to the SERI distribution list please contact Louise South.

You can keep up to date with developments by subscribing to the Creating Knowledge hub: <https://blogs.shu.ac.uk/creating/>

