

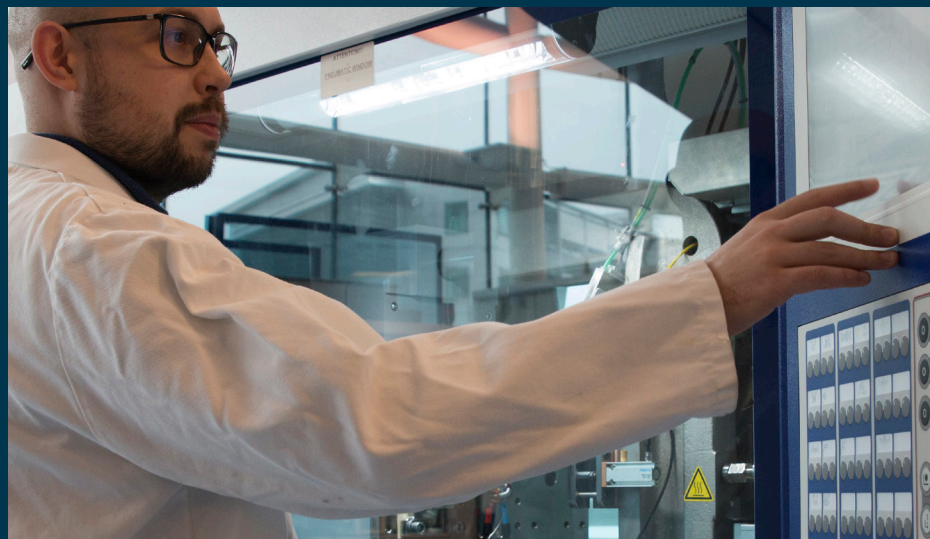


UNIVERSITY of
BRADFORD

Faculty of Engineering
& Informatics

Faculty of Engineering and Informatics Newsletter

January 2022



Welcome from the Dean

On Thursday, 27th January, in line with the latest Government announcement, the new rules and guidance around Covid took effect. Whilst it is no longer compulsory to wear face coverings, the University of Bradford continues to promote their use, particularly in crowded spaces and where you could meet people you would not normally mix with.

More information can be found [here>>](#)

I would also like to remind everyone of the following important dates for Faculty staff:

Promotion and Probation:

The Faculty Academic Promotion and Probation Committee is on 23rd March and applications will need to be submitted by 11 March 2022 through HR ServiceNow. Please discuss with your line manager if you wish to put forward a case. A link to the promotion procedure is [here>>](#)

The deadline for the Faculty to confirm the outcome on all cases is 31st March 2022. The cases will then be put forward to the appropriate University Committee for consideration. Applications for Professional Services promotions / regrades are processed on a separate timeline and details of this scheme are [here>>](#)

Proposals for Honorary Visiting (HV) appointments:

All cases for such appointments should be submitted to the Faculty Management Committee (FMC) at least one week before the meeting date. Forthcoming FMC meeting dates prior to the Easter break (and the deadlines for submission of proposals) are as follows:

16th February 2022 (9th February)

16th March (9th March)

6th April (30th March)

Please contact [Sue Hinchliffe](#) for further details relating to documentation required for HV applications.

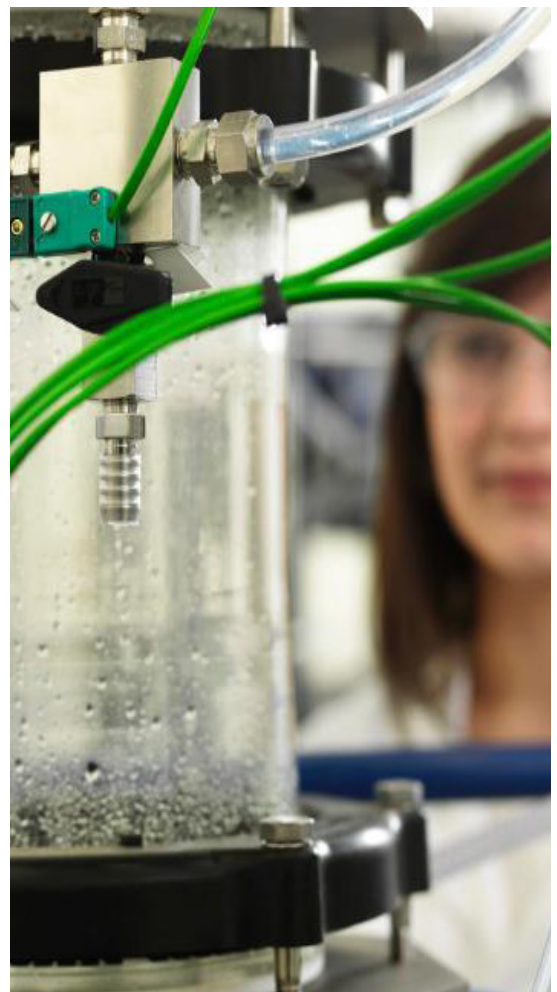
Performance Recognition:

The Individual/Team Reward Scheme allows managers to nominate their employees for an award to recognise their performance and contribution at any point throughout the year. Forms are available on HR Servicenow for line managers to submit applications, and applications will be considered at FMC meetings (forthcoming meeting dates as listed above in the item relating to HV proposals). More [here>>](#)



Newsletter summary:

1. Academic in profile
2. RKT News (grants applications, open calls, presentations and awards)
3. Staff and Students' news



Academic in profile:



Dr Sohag Kabir

Sohag is an Assistant Professor in Computer Science and the programme leader for the MSc Internet of Things and MSc Big Data Science and Technology programmes. He previously worked as a research associate in the Dependable Intelligent Systems research group at the University of Hull, the university from where he got his PhD in Computer Science in 2016.

Sohag is particularly interested in safety, reliability, and security assurance and certification of cyber physical autonomous systems. He also has interests in model-based safety analysis of safety-critical systems and probabilistic risk assessment of dynamic systems in conditions of uncertainty. He contributed to the H2020 DEIS (Dependability Engineering Innovation for Cyber Physical Systems (CPS)) project to develop a new modelling and integration framework for assuring the safety, security, and reliability of CPS. He also researched on model-based safety and reliability analysis in the EU FP7 funded Model-based Analysis & Engineering of Novel Architectures for Dependable Electric Vehicles (MAENAD) project.

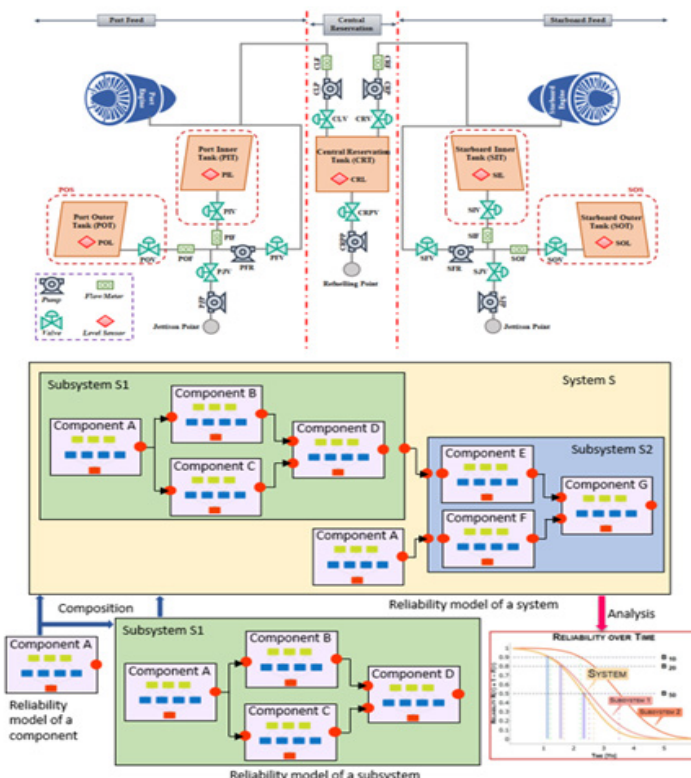
Over the years, Sohag had the chance to work with different tools and techniques such as Fault Tree Analysis, Dynamic Fault Trees, HiP-HOPS, FMEAs, MATLAB/Simulink, Markov Chains, Bayesian Networks, Stochastic Petri Nets, and State Machines. Currently, he is working on concepts for dealing with uncertainty and limited observability of data in safety assessment and certification of autonomous systems such as driverless cars. Sohag has published several papers in reputable high impact factor journals, and he received the Research Development Fund Publication Prize Award from the University of Bradford in September 2020. In 2018, he received the Outstanding Early Career Researcher and Postdoctoral Associate award from the University of Hull for his excellent research contribution and publication of high impact papers.

Current research interests:

- Safety and Reliability Assessment of Cyber Physical Autonomous Systems
- Model-based design and analysis
- Safety of Artificial Intelligence/Machine Learning
- Resilience Assurance of Autonomous Systems
- Probabilistic Risk Assessment
- Safety and Security assurance for Internet of Things Enabled Smart Systems
- Decision Making Under Uncertainty

Research projects:

- NextGenDrive—Autonomous Robotic Micro Factories (Innovate UK APC)
- Model-based Reliability Evaluation for Autonomous Systems with Evolving Architectures



Research and Innovation

Projects submitted:

- Computer Aided Organ Quality Assessment for Efficient Decision Making, Hassan Ugail
- Adopting Circular Economy Business Model for Resource efficiency in ICT industry (ACE4ICT), Dhaval Thakker
- Development of a Linguistic and ML conversational agent to assess language cognition for healthy ageing population and dementia, Kulvinder Panesar
- Environmentally benign polymer packaging materials and systems, John Sweeney
- Smart and Sustainable Manufacturing for Baking Industry, Savas Konur



Architecture degree comes with scholarships built in

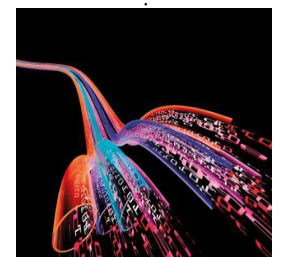
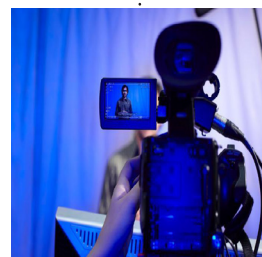
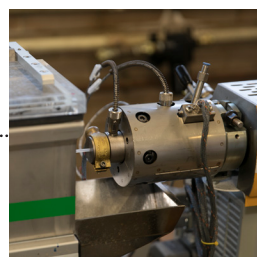
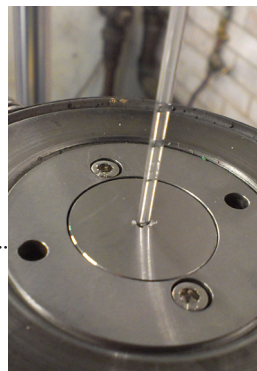
The University of Bradford's new architecture programmes (BSc in Architectural Technology and BEng in Architectural Engineering) are due to be launched in September and will enable students to learn directly from practising architects, work on authenticated projects and embed rigorous sustainability principles into their designs.

What's more, all undergraduate students who enrol - whether home or international - will benefit from a scholarship - in the form of a £7,500 fee reduction for international students and a £2,000 cash payment for home students (subject to conditions).

More [here](#)>>

Open calls for funding:

- [Innovate UK Smart grants](#), Closing date: 13 April 2022 11:00 UK time
- [Partner with researchers in Switzerland](#), Closing date: 8 March 2022 16:00 UK time
- [Environmental sciences: global partnerships seedcorn fund 2022](#), Closing date: 10 March 2022 16:00 UK time
- [Healthcare technologies for infectious disease resilience](#), Closing date: 31 March 2022 16:00 UK time



Staff and Students' news

Dr Caton-Rose invited paper at Autodesk Moldflow Summit 2022

The Autodesk Moldflow Summit 2022 helps professionals in plastic industry to learn and connect with Moldflow professionals, to discover new techniques and be inspired to make great plastic products.

Fin's invited paper titled 'Fibre Dispersion and Breakage During Injection Moulding of Long Fibre Reinforced Composites' is an experimental investigation of the breakage of long fibres during the injection moulding process. This work evaluates how fibres disperse and break along the screw and within the nozzle during a typical injection moulding cycle. The work presented 3D data capture of fibre bundles, through the use of micro-CT, and fibre length measurements, obtained via an optical technique. The work also included the effects of using this data on fibre length predictions within a moulding within AutoDesk Moldflow.

More [here](#)>>

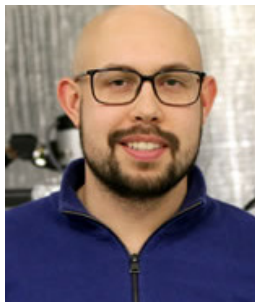


International Polymer Process Innovation Conference 2021

The International Polymer Process Innovation Conference (PPI), held on 14-15 December 2021, is the outcome of collaboration between the University of Bradford (UK), Montanuniversität Leoben (AT), National Technical University of Athens (GR), University of Minho (PT) and Ghent University (BE). It combines our biennial Polymer Process Engineering international conference (run since 1985!) with the Polymer, Moulds, Innovation conference run in Europe since 2005.

The Polymer IRC Bradford contributed with six scientific presentations (Innes J., Spencer P., Babenko M., Thomson B., Shriky B., Siddique N.) and one industrial presentation (SABIC, Taraiya A.). The conference provides a forum for academics and specialists from industry to exchange recent developments in the multidisciplinary areas of plastic and composite products, tool development and polymer process innovation. It also provided an excellent opportunity to disseminate the results of projects and research; to stimulate concepts or ideas; and promote research collaborations.

Read more [here](#)>>



PPI

Polymer
Process
Innovation

Staff and Students' news

Disability History Month

As part of the Disability History Month, the University of Bradford organised an event online, on Friday 17th December 2021, entitled 'Q&A with Josh Gardner, Senior Communications Manager at NHS England & 2021 Shaw Trust Disability Power 100 List nominee'.

In this session Josh reflected on his experiences as a wheelchair user in education, at work and as the head coach of the Leeds Rhinos wheelchair sports club. He talked about the support he has received, his reasonable adjustments and his disability activism in the NHS.

Josh said: "With a passion for disability sport and equality I have brought my life experience of being a wheelchair user into my working life to raise awareness of diversity in the workplace and, equal access to health care".

Josh's incredible achievements were recognised when he was nominated for 2021 Shaw Trust Disability Power 100 List. This annual publication highlights and champions the work of the top 100 disabled influencers in the country, as nominated by members of the public.

Creating Sustainable Future Through Research Partnerships

British council talk 'Creating Sustainable Future Through Research Partnerships' took place on 16th December and focused on the importance of research partnerships to tackle the impact of climate change. Two Newton Fund projects were covered. The following was discussed - the importance of research partnerships to overcome the challenges in climate change, and the role of grant programmes in their research.

More [here](#)>>

TURKEY HIGHER EDUCATION TALKS

Creating Sustainable Future Through Research Partnerships

16 December 2021 15.00 (TR time) – 12.00 (UK time)

Moderator



Erhan Yavas
Newton Fund Manager,
British Council Turkey

Speakers



Prof. Ashraf Ashour
Structural Engineering,
University of Bradford



Prof. Mustafa Sahmaran
Civil Engineering,
Hacettepe University



Assoc. Prof. Soroosh Sharifi
Water Engineering,
University of Birmingham



Assoc. Prof. Babak Vaheddoost
Hydraulics and Water
Resources Management,
Bursa Technical University



Staff and Students' news

Dr Sefat books listed on Bookauthority

Farshid's books on biomaterials are now listed on the Bookauthority website and classified as "invaluable reference for researchers and clinicians within the biomedical industry and academia".

Advanced Dental Biomaterials can be used by both experienced researcher/clinician learning about other biomaterials or applications that may be applicable to their current research, or as a guide for a new entrant into the field who needs to gain an understanding of the primary challenges, opportunities, most relevant biomaterials, and key applications in dentistry.

Handbook of Tissue Engineering Scaffolds: Volume Two provides a comprehensive and authoritative review on recent advancements in the application and use of composite scaffolds in tissue engineering. Chapters focus on specific tissue/organ (mostly on the structure and anatomy), the materials used for treatment, natural composite scaffolds, synthetic composite scaffolds, fabrication techniques, innovative materials and approaches for scaffolds preparation, host response to the scaffolds, challenges and future perspectives, and more.

More [here](#)>>

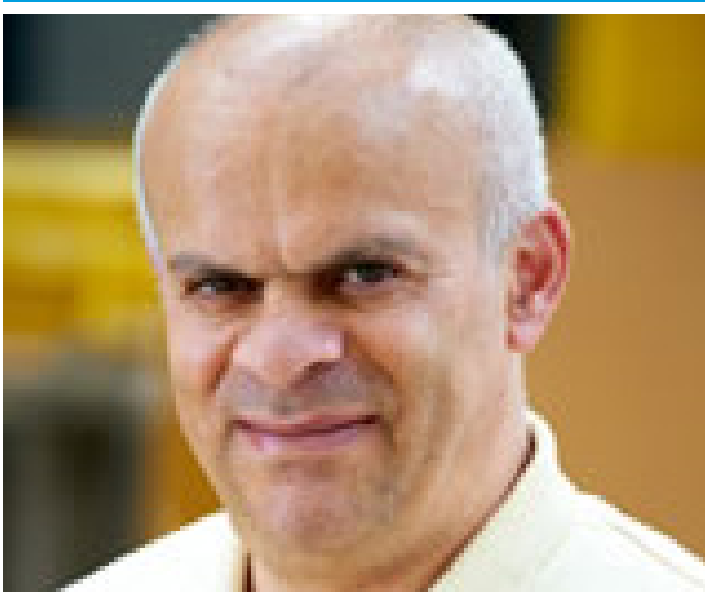


Dr Youseffi paper published in Springer Nature

The paper titled 'Neuroevolutionary intelligent system to aid diagnosis of motor impairments in children' was published in the Applied Intelligence journal, part of Springer Nature.

The paper proposes a two-step GA-guided optimisation for early prediction of self-care issues in children with motor impairments and for the prognostic assessments to predict which children may be more likely to experience further self-care problems if they were left untreated or if they underwent non-optimal treatments. Hence, as a DSS, the GA-Gui-MLP can help both in achieving an early detection of self-care issues in children with motor impairments in a clinical setting, and in assisting with repetitive prognostic assessments and titrating treatment strategies, thus enhancing the sensitivity and specificity of conventional therapeutic methods and processes.

More [here](#)>>



Staff and Students' news

Dr Karen Thornton, argues why we need to keep the BBC licence fee

As the Government hints that the BBC may soon have to consider alternative funding models, Dr Karen D Thornton, programme leader in Film and Television Production at the University of Bradford, argues the BBC is a national treasure and the licence fee should stay.

[More here>>](#)



Mark Goodall no.2 in the charts

Mark's article in The Conversation entitled 'The Beatles: Get Back and the magic of seeing chords become anthems' is number two in the charts with 7,516 reads.

The article analyses the reaction to the 1969 documentary 'Let It Be' that includes footage of the legendary band rehearsing and recording songs for their 12th studio album but also the rooftop concert, their last public performance together.

[More here>>](#)

How the £13.13 monthly licence fee was spent, 2020/21

TV £6.42	Online £1.32	World Service £1.28
	Other services and production costs £1.10	
Radio £2.29	Licence fee collection £0.72	

1	Hypersonic missiles are fuelling fears of a new superpower arms race	Christoph Bluth	November 29, 2021	7,604
2	The Beatles: Get Back and the magic of seeing chords become anthems	Mark Goodall	December 3, 2021	7,516
3	Omicron: Britain plans to vaccinate 25 million in two months – but can it be done?	Liz Breen, Anthony R Cox	December 3, 2021	6,865
4	The psychology of closure – and why some need it more than others	Pam Ramsden	October 9, 2018	5,317
5	Alcohol really is no excuse for bad behaviour – research reveals you're still the same person after a drink	Kathryn Francis	August 23, 2019	3,987

Staff and Students' news

Don't be silent on racism, says Bradford film graduate

University of Bradford TV production graduate Usmaan Arshad made a series of short films about racism in modern Britain which have been viewed millions of times online and are hosted on the BBC's website.

His work is being highlighted in support of the Universities UK (UUK) Creative Sparks #MadeAtUni campaign, which celebrates the immense contribution of UK universities to the creative sector.

Usmaan went on to work for local TV station Made In Leeds and then as a production editor at the BBC. He has since worked for Apple TV and Netflix, and has plans for more films and documentaries in the near future.

More [here](#)>>



Nominations for 2022 Royal Academy of Engineering Prizes are still open

The 2022 call for nominations for the Royal Academy of Engineering Prizes & Medals will close at 5pm on Friday, 4th February 2022.

These academy prizes and medals recognise excellent engineering wherever it might be found. The celebration of engineering excellence is key to demonstrating the relevance of engineering to society today and inspiring the next generation of engineers.

More [here](#) >>



Royal Academy of Engineering

PhD success

PhD student Mohammed Rasheed supervised by Dr Mansour Youseffi has successfully defended his PhD thesis entitled 'Breast cancer, medical imaging, and cancer genetics'.

Congratulations!



Staff and Students' news

Special Collections awarded Archive Service Accreditation for second time

This Special Collections includes thousands of objects, including books, pictures and even smoking pipes. The award is significant because it means the Special Collections - which is held within the J B Priestley Library - has been recognised for good performance in all aspects of service delivery.

The library is home to over 150 collections of rare books and archives including pamphlets, maps, photographs, letters and objects including J B Priestley's smoking pipes. Archivist Julie Parry explains: "The University was the first service in an English university to achieve accreditation status in 2014. Full accredited Archive Service status is granted for up to six years, so we recently reapplied and are thrilled to have been re-accredited."

More [here](#)>>



Early Career Research Seminar (ECRF)

Dr Cuong Dao gave a talk on 'Reliability Analysis and Maintenance Modelling of Engineering Systems'.

Dr Luke Postlethwaite introduced the forum to the new structure around Research Development and Impact within RaIS.

Our next meeting is on 16th February 2022, 12 noon, and is followed by a 'Shut-up and write' session.

More [here](#)>>



Staff and Students' news

New staff

Bethany Newsome (b.newsome@bradford.ac.uk) and Paul Souza (p.souza@bradford.ac.uk) joined the technical team, working as Audio Visual Assistants. Both started in December, and are here on a 6 month placement on the government's post-covid Kickstarter scheme. They will be here working alongside our existing Kickstarters Felix and Luke (who are with us until early February).

They will be based in Horton D2.21, supporting the Horton D2.20 loan counter, assisting with teaching support and various projects within the faculty for the next six months.



New Staff in the RaIS - Research Development Manager

Dr Luke Postlethwaite has taken on the role of Research Development Manager. He is an experienced bid writer and project manager, having secured projects valued at over £70 million. He is also a skilled researcher with excellent work experience in a range of education and non-profit environments (including higher education, vocational training and careers guidance).

Luke will lead the University's research grants function within Research and Innovation Services, enabling academic colleagues to win and manage external grant funding by developing high quality interdisciplinary bids in line with the external policy landscape. He will develop and maintain strong relationships with external funders, advise senior leaders on trends and developments in the external funding landscape to deliver the University's ambitious research funding targets.



