



Developing knowledge and capacity in water engineering and development worldwide

[www.lboro.ac.uk/wedc](http://www.lboro.ac.uk/wedc)

# NEWSLETTER

July 2021

## Water Engineering and Development Centre

- Study by distance learning – start in October
- Join the 42nd WEDC International Conference – online



School of Architecture, Building and Civil Engineering



Loughborough University



## Group Lead

## Welcome

I am delighted to remind you that this year **WEDC** celebrates 50 years of undertaking multidisciplinary research that provides high quality, research-led education and training for the next generation of professionals and leaders to tackle global challenges in the broad field of water engineering and development. As WEDC alumni, students, staff and partners you have all played a major part in WEDC's fantastic achievements over half a century. Thank you!

The problems presented by the Coronavirus global pandemic over the last 16 months have been extremely challenging for all of us. However, I am sure you will not be surprised to hear that despite these challenges, WEDC is alive and kicking and excited about the future. Some of the WEDC team have recently retired or moved onto new pastures. While they will of course be greatly missed, we have also recruited new staff that are helping us to develop new research themes as well as consolidating our well-established WASH activities.

Accordingly, WEDC extends a warm welcome to *Dr Huili Chen*, as Lecturer in Water Engineering; much of Huili's work has used remotely sensed data combined with modelling tools to investigate the impact of flooding on crop production and ecology. We also welcome *Susie Goodall* who has just joined the team as a University Teacher in International Water Engineering and Management and *Dr Innocent Tumwebaze* who has been working as a Research Associate, on the 'Beyond the Networked

City' project (more information about Susie and Innocent is provided on page 12).

Our experiences of teaching undergraduate and postgraduate students using mixed delivery methods (included remote platforms) has given us some great content and ideas which will be incorporated into our revamped Distance Learning Programmes on '*Water Engineering for Development*' and '*Water Management for Development*' (see next page).

Hopefully, many of you will be aware of WEDC's 42nd conference that will take place online this year to celebrate our 50th anniversary. The theme of the conference is '*Equitable and Sustainable WASH Services: Future challenges in a rapidly changing world*', again recognises that we face a future that is uncertain as the world is challenged by the impact of external factors, particularly climate change. More information about the conference can be found on page 4.

Finally, I must extend massive thanks to everyone in WEDC, many of whom have taken on more work, new roles and responsibilities in the Group and across the School. Further details can be found on the staff pages of the WEDC website.

See: <https://www.lboro.ac.uk/departments/abce/staff/>

*Lee Boshier*

# Learning and Teaching

## Study one of our distance learning programmes starting in October 2021!

Distance Learning programmes have always been a strength of **WEDC** and provide an excellent opportunity to study while there are ongoing restrictions on movement due to the global pandemic.

Delivered entirely online, students have access to comprehensive and relevant learning materials provided through the University's virtual learning environment (*LEARN*). In addition, WEDC staff now offer the opportunity for live online interaction using *MS Teams*, to enhance the learning experience.

The following programmes will be running in the coming academic year, providing a range of options for study:

- **MSc Water Management for Development (WMD)** – full time 1 year Distance Learning
- **MSc Water Management for Development (WMD)** – part time Distance Learning
- **MSc Water Engineering for Development (WED)** – full time 1 year Distance Learning\*
- **MSc Water Engineering for Development (WED)** – part time Distance Learning

\* New for 2021/22: our WED programme is also available to study full time in 1 year!

The module on *Disaster Risk Management* has always been a popular element of our course and we will be offering additional optional modules for 2021/22. These comprise:

- **Humanitarian Water, Sanitation and Hygiene Promotion:** This addresses the design and implementation of emergency WASH intervention to meet user needs, while addressing environmental, institutional and time-based issues. (Available on WMD and WED programmes)
- **Advanced Wastewater Treatment:** This module explores the fundamental scientific and engineering principles of advances in wastewater treatment and how appropriate systems can be selected to meet desired outcomes. (Available on the WED programme)

Further details are available on the WEDC website: <https://www.lboro.ac.uk/research/wedc/>

Programmes are delivered by our "new-look" WEDC staff team, who bring a breadth and depth of experience to student learning. The expertise of our team ranges from technical aspects and institutional requirements for sustainable WASH programmes in resource-limited contexts, to environmental modelling, use of remote data and GIS-mapping techniques to support sustainable water supply and sanitation in challenging environments.

**Our full time programmes based in Loughborough will resume in 2022.**

## Academic Excellence

**Congratulations to Sola Afolabi**, Lecturer in Water & Environmental Engineering, on his successful applications for *Fellow of the Higher Education Academy*. This qualification encourages excellence in teaching and provide academics with a nationally recognised and portable qualification.



# 42nd WEDC International Conference



**ONLINE: 13 –15 September 2021**

**Equitable and Sustainable WASH Services:  
Future challenges in a rapidly changing world**

The title of this year's conference recognises that the world faces a future that is uncertain, and as we face the global challenge of the Covid-19 pandemic, we are challenged too by climate change and the impact it has on water, sanitation and hygiene (WASH).

For fifty years, WEDC has sought to develop the knowledge and capacity of both individuals and institutions across the world working to meet the challenges of WASH in low- and middle-income countries. WEDC International Conferences continue to be key to supporting learning and sharing, which is critical for progress towards global goals and aspirations. To this end, we encourage open and honest exchange and debate of experiences of WASH within our changing environment.

The conference comprises three days of online presentations and interactive discussions of peer-reviewed content; agency events from international organizations working in the sector; online exhibitions; and the opportunity for delegates to meet and network in our virtual rooms.

We have accepted contributions from over 200 authors representing 46 countries.

**We hope to see you online in September too,  
when we will also be celebrating 50 years of WEDC!**

**REGISTRATION OPENS ON 4 AUGUST 2021**

A promotional banner for the 42nd WEDC International Conference. The top section features the WEDC logo, the text 'Fifty years of developing knowledge and capacity in water engineering and development worldwide', and the '50 1971-2021' anniversary logo. The main body of the banner has a blue water ripple background and contains the following text: '42nd WEDC International Conference', 'Equitable and Sustainable WASH Services', 'Future challenges in a rapidly changing world', and 'The conference will open on 13 September 2021 at 9.00am BST'. Below this text is a blue button with the word 'ENTER' in white. At the bottom of the banner, it says 'Sponsored by The Waterloo Foundation'. The footer of the banner includes the text 'Water Engineering and Development Centre School of Architecture, Building and Civil Engineering' and the Loughborough University logo.

# Research News

## WEDC Involved in Shaping a New MSc in International Sustainable Development

WEDC are delighted to announce that a new *MSc in International Sustainable Development* will commence in October 2022, based at Loughborough's London campus.

The aim of the programme is to develop critical understanding and provide practical insights into sustainable development in the global context. It will provide both conceptual and practical understanding of international development in the context of *Sustainable Development Goals*, and the current and emerging global challenges that they strive to address. The programme has a particular focus on low-and-middle-income countries, and WEDC colleagues have contributed to shaping the themes and shape of the course, and core modules will be delivered by WEDC staff. In fact, this represents a new level of collaboration between WEDC and **Loughborough University London**, and these modules will

also be available as options to other post-graduate programmes at the London campus.

The dynamic environmental, social and political changes mean that there are significant contemporary challenges in sustainable global development. The MSc programme provides an opportunity to learn and critically reflect upon a range of major traditions, critical theories and analytical frameworks. Through partnerships in developing countries in Africa, Asia and Latin America, and through excellent contacts with key players in the field, such as United Nations (UN) agencies, bilateral agencies, international non-governmental organizations (INGOs), and international corporations, students will have the opportunity to explore their specific interests and learn about tools, practices and infrastructures that can enable, facilitate or challenge social change and social justice.

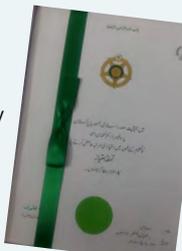
## Keynote in Drexel University, Philadelphia, USA

*Ksenia Chmutina* was invited to give a keynote at the *Annual Conference on Global Challenges* – with this year's theme being Disaster. Ksenia's keynote '*Frames of Disaster: Are Natural Hazards Really a Problem?*' focused on the implications of using disaster concepts and highlighting that our framing of disasters needs to be around systemic root causes that are grounded in oppression and marginalisation, and not about hazards.



## Pride of Performance Award

*Professor Noman Ahmed*, Dean at the **NED University of Engineering and Technology**, Karachi, Pakistan was awarded a *Pride of Performance* award by the President of Pakistan on 23/3/2020. Professor Ahmed completed his PhD under the supervision of *M.Sohail*. Details available at: <https://www.dawn.com/news/1614250/governor-confers-civil-awards>



## WEDC team works on glacial lake outburst floods (GLOFs) risk assessment in Nepal

Through the **NERC** funded project '*Web-Based Natural Dam-Burst Flood Hazard Assessment and Forecasting SysTem (WeACT)*', *Professor Qihua Liang* and *Dr Huili Chen* have been collaborating with academics and researchers from **Newcastle University** (UK), **Tribhuvan University** (Nepal) and the **International Centre for Integrated Mountain**

**Development (ICIMOD)** to develop new approaches to assess and forecast GLOF risk in Nepal, exploiting the latest Earth Observation and high-performance modelling technologies. The **WEDC** team have developed and validated a new framework to assess at high-resolution the potential impact of GLOFs on the downstream communities and key infrastructure

systems using high-performance modelling techniques and open data. The research has been delivered through working closely with the local communities and stakeholders. **The Department of Hydrology and Meteorology (DHM)** of Nepal has expressed interests in using the research outputs to support GLOF and wider flood risk management.



Photograph: Community engagement workshop in November 2019

# Research News



## Dr Ksenia Chmutina is leading the resilience theme for a new global research project

*'Gender Responsive Resilience and Intersectionality in Policy and Practice (GRRIPP) - Networking Plus Partnering for Resilience'* is a 4-year global collaboration and knowledge-exchange project funded by the Global Challenges Research Fund. It aims to bring together theory, policy and practice to promote a gender-responsive approach to disaster management and development. The project consists of five core themes - Intersectionality and Gender, Resilience, Infrastructures, Critical theory, and Decoloniality. *Dr Ksenia Chmutina*, a Senior Lecturer in Sustainable and Resilience Urbanism at WEDC, is leading the resilience theme.

GRRIPP is led by *Professor Maureen Fordham* from **UCL**, and involve three other UK Universities (**Durham**, **Middlesex** and **Loughborough**), working closely with regional leads from the **Durban University of Technology**, **University of Dhaka** and **University of Peru**. The project provides a unique opportunity to engage with academics, practitioners as well as community members in Latin America and Caribbean, Southern Africa, and South Asia. The ultimate aim is to transform thinking around gender in disaster and conflict contexts, and challenge the normative notions of resilience and infrastructure through the lens of intersectionality. The project partners collectively and democratically determine an agenda for change by facilitating knowledge exchange, enhancing solidarity, creating spaces for constructive dissent, and building an evidence base informed by grassroots knowledge and experience.

For more information, visit: <https://www.gripp.net/>



## InSIGHT Game Piloted in USA

In collaboration with the **International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM)** and **Blue Shield Georgia**, *Ksenia Chmutina* has devised the concept and methodology for a new participatory game to help people understand how cultural and natural heritage can be used for disaster risk reduction and sustainable development. The main aim of the game is to give a voice to marginalised communities who are not often consulted when developing disaster risk reduction strategies.

The game was piloted in **Racha**, Georgia, in August 2019 and was then launched in October 2020. The details of the *InSIGHT game* can be found online at: <https://www.iccrom.org/news/insight-participatory-game-enhancing-disaster-risk-governance>



# Research News

## International Expert Working Group

Lee Boshier and Ksenia Chmutina were invited to join an expert working group set up by the **UN Office of Disaster Risk Reduction (UNDRR)**, in collaboration with the **International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM)**. The working group comprises 15 experts from around the world, who together are developing a Words to Action Guide on *'Using traditional knowledge for disaster risk reduction'*. The guide will provide practical guidance to countries and practitioners on identifying, documenting and adapting traditional knowledge for developing policies, programmes and innovative projects for mitigating, adapting, preparing and responding to various disaster risks.

Lee and Ksenia also presented at the *Capacity Building for Disaster Risk Management of Cultural Heritage: Challenges and Opportunities in Post-COVID-19 Times webinar*. The June 2020 event was

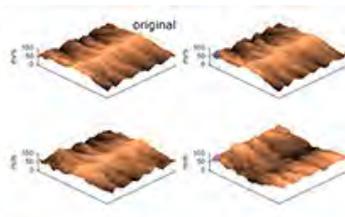
organized by the **Institute of Disaster Mitigation for Urban Cultural Heritage (R-DMUCH)**, Ritsumeikan University, Japan.

In September, Lee and Ksenia also joined the online Workshop on *"Good Practices for Disaster Risk Management of Cultural Heritage"*, as members of the jury.



## WEDC's collaboration with universities in the USA leads to new results in theoretical geomorphology

Chris Keylock has been working with the **University of Texas**, Austin, the **University of Central Florida** and the **University of California Irvine** on new methods for characterising landscape topographies. In the first piece of work, published in 2020 in *Water Resources Research*, a long-established technique known as landscape hypsometry was combined with information of the local roughness of the topography to provide a more sensitive means to characterise landscapes using a small number of statistical parameters.



The team's latest paper was published in May 2021 in the *Journal of Geophysical Research*, and develops a new method to generate synthetic landscapes that preserve the roughness structure and elevations of the original. This means that hypothesis testing with regards to refined properties of observed terrains can be achieved. The underpinning experiments on landform evolution were undertaken at the **St Anthony Falls Laboratory, University of Minnesota**.

The figure shows the experimental facility, an original landscape following a period of uplift and rainfall, and three of our synthetic surfaces with the same set of elevations and local roughness scaling properties. It is envisaged that these techniques will help civil engineers, hydrologists and geomorphologists gain a greater insight into the changes to topography that will result from future changes to climate.

# Research News

## International Workshop

On Wednesday and Thursday 19th-20th May 2021, **WEDC** hosted an *online International Workshop on Geomorphology* organized by *Tim Marjoribanks* and *Chris Keylock* alongside other colleagues from across the UK. The event was supported by the **British Society for Geomorphology** and was a follow-up to a 2019 meeting.

The 2021 meeting was structured around key themes with the first day devoted to instrumentation and its use for modelling river flows and bedform dynamics. Attendees were from Geography, Oceanography and Engineering departments in universities in the UK and Chile, as well as the **National Energy Technology Laboratory** in the USA and various instrumentation firms based in the UK. Topics included the use of CCTV cameras for estimating stage-discharge relations, measuring granular fluidisation to infer new physics, nonequilibrium turbulence dissipation in tidal regions, and the development of wave tracking algorithms for autonomous shipping.

Day two began with a session on flow-vegetation-sediment interactions – with two extended presentations from the **University of Trento** and the **University of Hull** – followed by shorter introductory presentations from **Exeter, Glasgow, Huddersfield, Hull, Loughborough, QMUL, and Utrecht**, and then a group

discussion. The work presented discussed biotic phenomena from a range of scales from river channel and catchment management, to biofilm formation and destruction. The discussion sessions led to various ideas regarding future collaborations and potential ideas for grant funding. *Professor David Furbish* from **Vanderbilt University**, Tennessee, provided a keynote talk over lunchtime – which was integrated into the **WEDC** seminar series – and concerned the statistical mechanics of sediment transport processes. David discussed the difficulties of applying continuum reasoning to processes that are discrete in nature and, thus, the fundamental difference between stochastic equations expressed in continuum form, such as Fokker-Planck, and continuum conservation laws. The afternoon

session concerned the physics of nonequilibrium geomorphic systems and was well attended from the Americas in particular, with audience members from **MIT, Indiana University, the University of Virginia, and the Catholic University of Chile**. Speakers were from **Loughborough University**, and the Universities of **Pennsylvania, Central Florida, and Minnesota**. Topics presented ranged from cutting-edge granular creep experiments using photon source experimental techniques, to the mathematical analysis of fractal percolation, and the characterization of topographic surfaces using statistical techniques.

This highly successful event brought researchers together from around the world to discuss a suite of interrelated research questions.



# Research News

## October 2020 PhD Starters

Name	Supervisor(s)	Project Title
Hannah Brown	Water-WISER CDT	
Kaicui Chen	Dr Huili Chen / Professor Qiuhua Liang	Develop a digital twin for flood resilience in urban area
David Galibourg	Water-WISER CDT	
Bart Hill	Water-WISER CDT	
Ayan Hujaleh	Water-WISER CDT	
Awa Nkole	Dr Kirti Ruikar / Professor M Sohail	A Comparative Analysis of Infrastructural Project Procurement Mechanisms between developed and developing countries – The UK and West African case
Jonathan Vann	Dr Tim Marjoribanks / Dr Ksenia Chmutina	Application of natural flood management to small urbanised river catchments

## January 2021 PhD Starters

Name	Supervisor(s)	Project Title
Haneen Felemban	Professor M. Sohail / Dr Aaron Anvuur	Artificial intelligence application in predicting delays in construction projects in Saudi Arabia.
Elizabeth Paddy	Dr Sola Afolabi / Professor M. Sohail	Transmission and Infection Risks of Toilet Plume in the UK Healthcare Settings.
Siwen Wang	Dr Robby Soetanto / Dr Ksenia Chmutina	Evaluating and enhancing the resilience in urban cities: green infrastructure and communities.

## PhD Completions

Name	Supervisor(s)	Project Title
Liz Marlow	Dr Ksenia Chmutina / Professor Andy Dainty	The realpolitik of sustainability and resilience in the city: critical analysis
Hartini Yahya	Professor M Sohail / Dr Julie Fisher	The Role of Good Regulatory Practice (GRP) in Malaysian Water Services Industry
Bob DiFilippo	Professor Lee Boshier / Dr Tom Dijkstra	An inter-disciplinary freshwater lens assessment protocol for karst islands.
Roses Enang	Dr Sam Kayaga / Professor Lee Boshier	Managing information for operation and maintenance of water infrastructures in African Countries.
Angela Akpovi	Dr Sam Kayaga	Managing risks to urban self-supply borehole water. Case study: Asaba, Nigeria.

# Research News

## New Visiting Students

Name	Supervisor(s)	Project Title	Home University	Start Date	Finish Date
Wenyuan Dong	Professor Qihua Liang	Real-time flood forecasting based on data-driven models and data pre-processing techniques.	Dalian University of Technology, China	15 June 2021	14 June 2022

## New Grants

### Beyond the Networked City: Building Innovative Delivery Systems for Water, Sanitation and Energy in Urban Africa

Lead PI: Sam Kayaga  
 Collaborators: Ksenia Chmutina, Qihua Liang, Rebecca Scott, Xilin Xia  
 Funder: ESRC via Bristol University  
 ABCE funding: £355,330  
 Total project value: £1,764,840  
 Period of award: 01/04/2020 - 31/03/2023

*Overview: The aim of the Beyond the networked city project is to enhance the delivery of sustainable and resilient water, sanitation and energy services to marginalised communities in Freetown, Sierra Leone, and Kampala, Uganda through high quality research that develops a mixed economy model of on-grid and off-grid systems. Central to our thinking is that both on-grid and off-grid systems should provide users with the same safety and adequacy of service.*

### Exchange visits with Kyoto University on river channel hydraulics

Lead PI: Chris Keylock  
 Collaborator: Tim Marjoribanks  
 Funder: The Great Britain Sasakawa Foundation  
 Project value: £3,050  
 Period of award: 01/08/2020 - 28/02/2021

### Gender Resilience Intersectionality in Policy and Practice - Networking Plus Partnering for Resilience (GRRIP)

Lead PI: Ksenia Chmutina  
 Funder: ESRC via University College London  
 ABCE funding: £60,025  
 Total project Value: £4,809,498  
 Period of Award: 01/11/2019 - 31/10/2023

*Overview: Gender-Responsive Resilience & Intersectionality in Policy and Practice (GRRIPP) project is a GCRF Network Plus project. It aims to connect existing networks of disciplines and sectors, across places and regions, to promote new ways to think about resilience in Latin America, South- East Asia, and Southern Africa.*

<https://gtr.ukri.org/projects?ref=ES%2FT002700%2F1>

### PYRAMID: Platform for dYnamic, hyper-resolution, near-real time flood Risk AssessMent Integrating repurposed and novel Data

Lead PI: Qihua Liang  
 Funder: Natural Environment Research Council  
 ABCE funding: £182,839  
 Total project value: £777,794  
 Period of award: 14/08/2020 - 13/08/2022

*Overview: PYRAMID aims to demonstrate a new web-based approach to integrate repurposed and new / emerging data sources into state-of-the-art, hyper-resolution flood modelling for dynamic near-real-time flood risk assessment. It will use the city of Newcastle and its wider Tyne catchment as a demonstrator for the developed web platform that is readily transferable to other cities / catchments.*

## Editorials June 2020 – June 2021

Guan M, Liang Q, Hou J (2021) 'Editorial: Smart Approaches to Predict Urban Flooding: Current Advances and Challenges', *Frontiers in Earth Science*, Vol. 9, SJR 1.248. DOI: [10.3389/feart.2021.681751](https://doi.org/10.3389/feart.2021.681751)

Özgen-Xian I, Xia X, Liang Q, Hinkelmann R, Liang D, Hou J (2021) 'Innovations towards the next generation of shallow flow models', *Advances in Water Resources*, Vol. 149, SJR 1.551. DOI: [10.1016/j.advwatres.2021.103867](https://doi.org/10.1016/j.advwatres.2021.103867)

von Meding J, Chmutina K, Forino G, Raju E (2020) 'Guest editorial', *Disaster Prevention and Management*, Vol. 29, SJR 0.47, pp. 829-830. DOI: [10.1108/DPM-11-2020-405](https://doi.org/10.1108/DPM-11-2020-405)

# Research News

## New Journal Papers June 2020 – June 2021

**Chen H, Liang Q, Liang Z, Liu Y, Ren T** (2020) '**Extraction of connected river networks from multi-temporal remote sensing imagery using a path tracking technique**', Remote Sensing of Environment, Vol. 246. DOI: [10.1016/j.rse.2020.111868](https://doi.org/10.1016/j.rse.2020.111868)

**Chmutina K, Tandon A, Kalkhitashvili M, Tevzadze M, Kobulia I** (2020) '**Connecting heritage, vulnerabilities and capacities through a participatory game**', International Journal of Disaster Risk Reduction, Vol. 53, SJR 0.769. DOI: [10.1016/j.ijdrr.2020.102005](https://doi.org/10.1016/j.ijdrr.2020.102005)

**Jiang J, Liang Q, Xia X, Hou J** (2020) '**A coupled hydrodynamic and particle-tracking model for full-process simulation of nonpoint source pollutants**', Environmental Modelling & Software, Vol. 136, SJR 1.963. DOI: [10.1016/j.envsoft.2020.104951](https://doi.org/10.1016/j.envsoft.2020.104951)

**Keylock, CJ, Singh, A, Passalacqua, P, Fofoula-Georgiou, E** (2021). '**Evaluating Landscape Complexity and the Contribution of Non-Locality to Geomorphology**', *Journal of Geophysical Research: Earth Surface* 126, e2020JF005765. DOI: [10.1029/2020JF005765](https://doi.org/10.1029/2020JF005765)

**Pramanik M, Chowdhury K, Rana MJ, Bisht P, Pal R, Szabo S, Pal I, Behera B, Liang Q, Padmadas SS, Udmale P** (2020) '**Climatic influence on the magnitude of COVID-19 outbreak: a stochastic model-based global analysis**', International Journal of Environmental Health Research, SJR 0.627. DOI: [10.1080/09603123.2020.1831446](https://doi.org/10.1080/09603123.2020.1831446)

**Chmutina K, Sadler N, von Meding J, Abukhalaf A** (2020) '**Lost (and found?) in translation: Key terminology in disaster studies**', Disaster Prevention and Management: an international journal, Vol. 30, SJR 0.47, pp. 149-162. DOI: [10.1108/DPM-07-2020-0232](https://doi.org/10.1108/DPM-07-2020-0232)

**Marjoribanks T, Paul M** (2021) '**Modelling flow-induced reconfiguration of variable rigidity aquatic vegetation**', Journal of Hydraulic Research, SJR 1.168. DOI: [10.1080/00221686.2020.1866693](https://doi.org/10.1080/00221686.2020.1866693)

**Wilby R, Kasei R, Gough K, Amankwaa EF, Abarike M, Anderson NJ, Codjoe SNA, Griffiths P, Kaba C, Abdullah K, Kayaga S, Matthews T, Mensah P, Murphy C, Yankson PWK** (2021) '**Monitoring and moderating extreme indoor temperatures in low-income urban communities**', Environmental Research Letters, Vol. 16, SJR 2.436. DOI: [10.1088/1748-9326/abdbf2](https://doi.org/10.1088/1748-9326/abdbf2)

**Roy U, Radu T, Wagner J** (2021) '**Carbon-negative biomethane fuel production: integrating anaerobic digestion with algae-assisted biogas purification and hydrothermal carbonisation of digestate**', Biomass and Bioenergy, Vol. 148, SJR 1.235. DOI: [10.1016/j.biombioe.2021.106029](https://doi.org/10.1016/j.biombioe.2021.106029)

**Wang G, Liang Q, Shi F, Zheng J** (2021) '**Analytical and numerical investigation of trapped ocean waves along a submerged ridge**', Journal of Fluid Mechanics, Vol. 915, SJR 1.591. DOI: [10.1017/jfm.2020.1039](https://doi.org/10.1017/jfm.2020.1039)

**Bosher L, Chmutina K, van Niekerk D** (2021) '**Stop going around in circles: towards a reconceptualisation of disaster risk management phases**', Disaster Prevention and Management: An International Journal, Vol. ahead-of-print, SJR 0.47. DOI: [10.1108/dpm-03-2021-0071](https://doi.org/10.1108/dpm-03-2021-0071)

**Booth A., Chmutina K. and Bosher LS** (2020), '**Protecting Crowded Places: Challenges and Drivers to Implementing Protective Security Measures in the Built Environment**', Cities, 107, p.102891. DOI: [10.1016/j.cities.2020.102891](https://doi.org/10.1016/j.cities.2020.102891)

# Staffing News

## New Staff Introductions

### Susie Goodall:

Hi, I'm Susie, a new member of staff at **WEDC**. I'm excited to be joining the teaching team, supporting our programmes for aspiring professionals in the water management and WASH sectors.

My background is in Chemistry and Earth Science but I found my niche in Water and the WASH sector. After completing my MSc in Water Management, I worked as a WASH Programme Manager in Niger, West Africa for several years. I then moved into research, working with the **Oxford University Smart Water Systems group**, pioneering the *FundiFix* model for sustainable rural water services in Kenya. I joined WEDC in 2017 as a researcher, looking at WASH financing through '*Payment by Results*' in Bangladesh and then began my PhD on *human-environment interactions and disaster risk reduction*, with a case study of landslides in north-west China.



I've also worked in chaplaincy and student support, and love getting to know students from around the world – one of the highlights of WEDC taught and distance-learning students.

When I'm not working or studying you can find me trying to grow vegetables, reading about philosophy and theology, and out walking and cycling with friends.

### Dr Innocent Tumwebaze:

Hi, I am Innocent K. Tumwebaze, a new member of staff at **WEDC**. I am a Research Associate, working on a *Beyond the Networked City (BNC)*: <https://gtr.ukri.org/projects?ref=ES%2FT007656%2F1>

My background is in Social Sciences. I have a Bachelor's in Social Sciences, MSc in Clinical Epidemiology and Biostatistics, and PhD in Psychology. Thus far, my career has all been in the WASH sector as an implementer of WASH programs, consultant, and academic researcher.

Some of my scholarly publications can be found at: <https://scholar.google.com/citations?user=ns0VCtcAAAAJ&hl=en>

I feel excited joining the WEDC team and looking forward to interacting or collaborating on some projects.

Outside work, I enjoy my light time sightseeing – through running. If you want someone to play volleyball, badminton or football, please contact me.



## New Appointments, welcome to...

- *Susie Goodall*, University Teacher in International Water Engineering and Management. Email: [S.Goodall@lboro.ac.uk](mailto:S.Goodall@lboro.ac.uk)
- *Beth Gregory* joins us from the School of Science as our Water Quality Technician. Email: [B.Gregory@lboro.ac.uk](mailto:B.Gregory@lboro.ac.uk)
- *Xiaodong Ming*, Research Associate in Flood Risk Assessment. Email: [X.Ming@lboro.ac.uk](mailto:X.Ming@lboro.ac.uk)
- *Hannah Ryan* joins us from the University of Nottingham as our Student Administration Manager. Email: [H.Ryan@lboro.ac.uk](mailto:H.Ryan@lboro.ac.uk)
- *Dr Innocent Tumwebaze*, Research Associate for the ESRC-sponsored Beyond the Networked City (BNC) Research project. Email: [I.K.Tumwebaze@lboro.ac.uk](mailto:I.K.Tumwebaze@lboro.ac.uk)

## Promotions

We are delighted to announce that [Professor Qiuhua Liang](#) will take over as Associate Dean for Research (ADR) for the School of Architecture, Building and Civil Engineering of which WEDC is a part.

[Dr Sam Kayaga](#) has been promoted to Reader in Sustainable Systems for Water Security.

[Dr Ksenia Chmutina](#) has been promoted to Reader in Sustainable and Resilient Urbanism



## Staff Departures

It is with sadness that we say farewell to the following staff who have retired from our School since the last newsletter:

- *Anne Blenkinsopp*
- *Dr Julie Fisher*
- *Sue Harrison*
- *Glenda McMahon*
- *Kevin Sansom*



Water, Engineering and Development Centre  
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