



UKIERI PARTNERSHIPS

2006-2018

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About UKIERI

UK-India Education and Research Initiative (UKIERI) was started in April 2006 with the aim of enhancing skills and educational links between India and the UK. Since then, the programme has established partnerships on leadership development, joint research and innovation and skills development. Over 1,000 UK and Indian institutions have benefited from the programme. 25,000 exchanges of UK and India academicians, researchers, staff and students have also been supported.

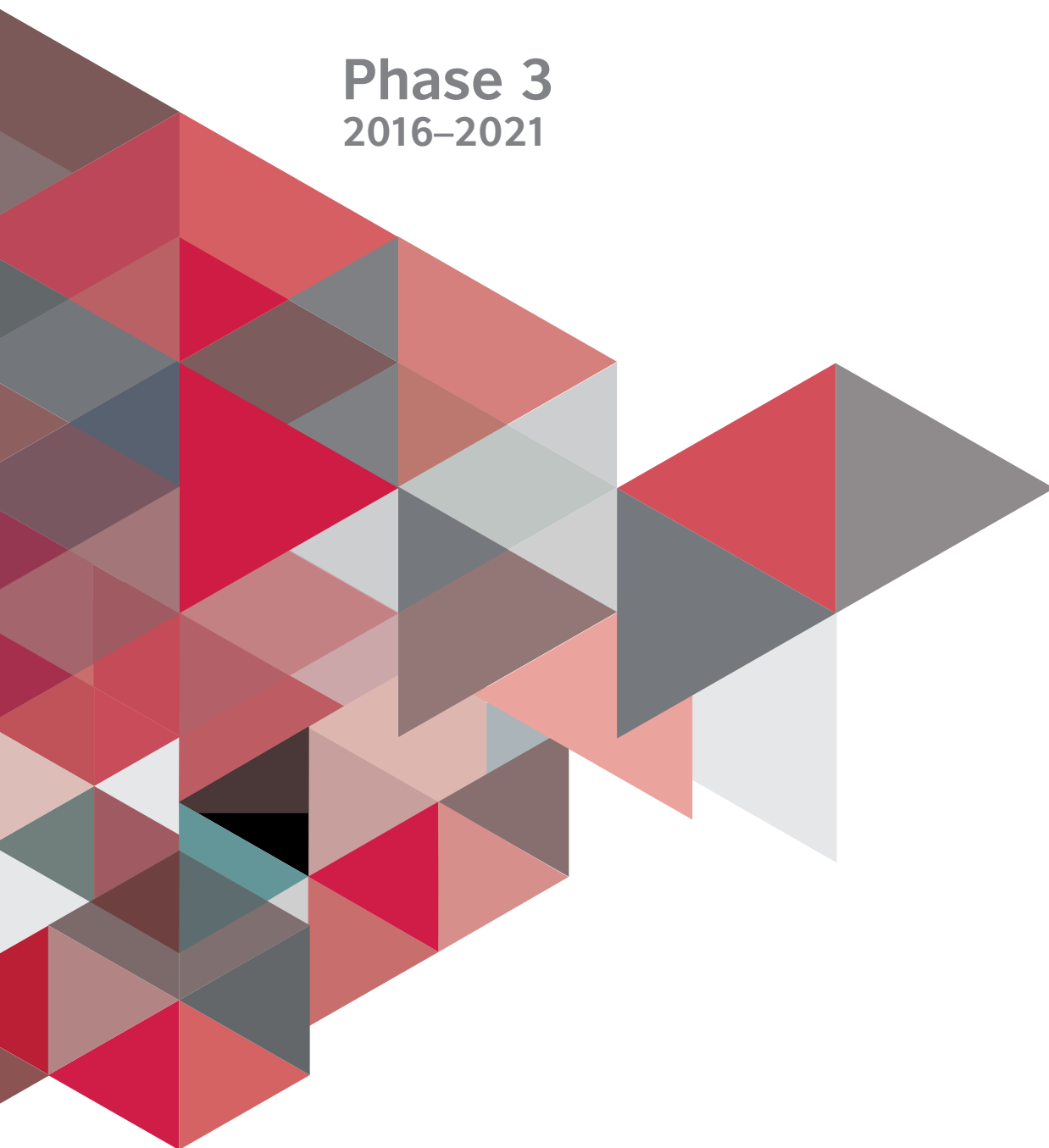
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UKIERI Partnerships

Phase 3
2016–2021



ACRONYMS AND ABBREVIATIONS

DST	Department of Science & Technology
UGC	Universities Grant Commission

UKIERI Department of Science & Technology Partnerships 2016-17

S. No.	Project Title	Project Area	UK Institution	Indian Institution
1	Environmental adaptation and resilience to climate change: investigating the sustainability of the Indus Civilisation (Indus Sustainability)	Climate Research	University of Cambridge	Banaras Hindu University, Varanasi
2	Miniaturised particulate sensors for climate science	Climate Research	University of Cambridge	Indian Institute of Technology, Delhi
3	Bio-Climate Feedbacks of Melting Himalayan Ice	Climate Research	University of Bristol	Jawaharlal Nehru University, Delhi
4	Towards an integrated approach for assessing the impact of climatic stresses on agriculture and the exchange of greenhouse gas on the Indo-Gangetic Plain	Climate Research	University of Leicester	Indian Institute of Technology Delhi
5	Big Data Aware High Capacity Wireless Network Architecture Using Caching and Machine Learning	Data Science	University of Edinburgh	Indian Institute of Technology Indore
6	Learning Robotic Motor Skills, Visual Control and Perception for Warehouse Automation	Data Science	University of Edinburgh	Indian Institute of Technology Kanpur
7	Theoretical and experimental studies of suspensions of magnetic nanoparticles, their applications and generalizations.	Material Science	University of Bath	Indian Institute of Technology Delhi
8	Facilitating the Intelligent Management of Chronic Wounds in Diabetic Patients: Developing Accessible Wound Monitoring Technologies	Human Health / Materials Science	Ulster University	Amity University, NOIDA
9	Investigating the regulation and manipulation of autophagy, mitophagy and xenophagy upon Mycobacterium tuberculosis infection in human embryonic stem cell-derived macrophages.	Human Health	University of Birmingham	International Centre for Genetic Engineering and Biotechnology, New Delhi
10	Advancing MEG based Brain-Computer Interface Supported Upper Limb Post-Stroke Rehabilitation	Human Health	Ulster University	Indian Institute of Technology, Kanpur
11	Understanding differences in the patterns of osteoarthritis in Indian and Western population: Impact on symptoms, treatment options and their outcome	Human Health	University of Leeds	All India Institute of Medical Sciences, New Delhi
12	Tidal Energy for Sustainable Village Electricity Supply in the Indian Sundarbans Biosphere	Climate Research	University of Edinburgh	Indian Institute of Technology, Kharagpur
13	Peptide Based Semiconducting Materials for Organic-electronic devices	Material Science	University of Cambridge	Indian Institute of Technology, Guwahati
14	Nature and nurture in arsenic induced toxicity of Bihar, India	Human Health	University of Salford	Anugrah Narayan College, Patna
15	Engineering novel electronic and magnetic states in pyrochlore iridates - multifunctional materials for next generation devices	Material Science	Loughborough University	Indian Association for the Cultivation of Science, Kolkata

16	Investigating BRCAness in epithelial ovarian cancer (EOC) in India to develop stratified surgical and chemotherapy options	Human Health	NewCastle University	Tata Medical Center (TMC) & Tata Translational Cancer Research Center, Kolkata
17	Development of Cost-effective and Green Assay Technology for the Selective Detection of Toxic Metal Ions using Functionalized Gold Nanoparticles.	Material Science / Human health	University College London	CSIR-Institute of Minerals & Materials Technology, Bhubaneswar
18	Understanding Recent Extreme Events in India in the Context of Climate Change	Climate Research	University of Oxford	Indian Institute of Technology, Bombay
19	Data-Driven Intelligent Energy Management for Environmentally Sustainable Energy Access	Data Science	University of Edinburgh	Indian Institute of Technology, Gandhinagar
20	Mode of CD40 clustering dictates its functional duality	Human Health	University of York	National Centre for Cell Science, Pune
21	Pursuit of Novel and Enhanced Optoelectronic Effects in Hybrid Perovskite Based Nanostructures	Material Science	University of Cambridge	Indian Institute of Science Education and Research, Pune
22	Estimating silicate weathering in a rising CO2 world from river water chemistry and lab-experiments: implications for future climate models	Climate Research	University of Cambridge	Indian Institute of Sciences, Bangalore
23	Nonlinear Interaction between Extreme Waves and Floating Bodies with Deformable Structures	Climate Research	City, University of London	Indian Institute of Technology Madras
24	Non-parametric Smart Sensing Analytics based on Large Spectrum Data and Estimation of Channel Activity Statistics	Data Science	University of Liverpool	Ahmedabad University
25	Past, present and future of bats in Western and Central India – impact and implications of climate change on species ranges	Climate Research	University of Bristol	Osmania University, Hyderabad
26	Methanol Fed High Energy Density Fuel Cell System with Novel Catalyst and Flow Field Design	Climate Research and Materials Science	Loughborough University	PSG College of Technology
27	Novel Computational Methodologies for Modelling and Characterization of Corrosion Pitting and cracking in Metallic Structures	Material Science	University of Manchester	Indian Institute of Science, Bangalore
28	Concentrated Photovoltaic (CPV) Assisted Tandem Artificial Photosynthetic (AP) Device for Effective Solar-to-Chemical Conversion	Material Science	University of Exeter	CSIR-Central Electronics Engineering Research Institute, Madras
29	A Wearable Fetal Movement Monitor for Prenatal Care in Community Medicine Practice	Public Health	Imperial College, London	Christian Medical College, Vellore
30	Ultrasound based assessment of tissue biomechanics to enhance the clinical management of foot related pathologies	Human Health	Staffordshire University	SASTRA University, Tanjore
31	Investigation of neurodegeneration associated with defective DNA break repair	Human Health	University of Sheffield	Manipal University, Manipal
32	Role of Entropy and information encoding in Guided Self- Assembly of Materials	Material Science	University of Cambridge	Jawaharlal Nehru Centre for Advanced Scientific Research, Bangalore

UKIERI Universities Grant Commission Partnerships 2016-17

S. No.	Project Title	Project Area	UK Institution	Indian Institution
1	Social Identity, Well-Being and Civic Participation among Social and Ethnic Groups in India	Humanities & Social Sciences	Keele University	Jawaharlal Nehru University, Delhi
2	The molecular mechanism of angiogenesis and neurogenesis in multicellular 3D culture of tumour cells using PHA based in vitro 3D models	Human Health	University of Westminster	Jawaharlal Nehru University, Delhi
3	Collaborative decision making on container supply chains	Humanities & Social Sciences	Newcastle Upon Tyne	Indian Institute of Technology, Delhi
4	Comprehensive tourism revival framework for Socio-Economic Development in post conflict Kashmir: Lessons from Northern Ireland	Humanities & Social Sciences	University of West London	University of Jammu
5	Multifunctional Nanoparticles in Cancer Therapy	Climate Research	University of Central Lancashire	University of Delhi
6	Antenna Systems for 5G Wireless Applications	Physics & Engineering	University of Westminster	Indian Institute of Technology, Delhi
7	Advanced Analytics for Green and Resilient Supply Chain Decision Making	Humanities & Social Sciences	Loughborough University	Indian Institute of Technology, Delhi
8	Teaching Feminisms, Transforming Lives: Questions of Identity, Pedagogy and Violence in India and the UK	Humanities & Social Sciences	University of Edinburgh	Ambedkar University, Delhi
9	The Benefits of Modifying Social Enterprise within Higher Education's Social Sciences Curriculum	Humanities & Social Sciences	University of Huddersfield	Department of Political Science, University of Delhi
10	Quasiperiodic optical lattices as magnetic filters: localization, spin transport and topological states	Physics & Engineering	University of Warwick	University of Kalyani
11	SAFE: Secure and Usable IoT Ecosystem	Data Science	Loughborough University	Indian Institute of Technology, Kharagpur
12	Bi-Cooperative Network Games: Analysis and Application	Humanities & Social Sciences	Queens University Belfast	Dibrugarh University
13	Ultra cold Fermi gas with Rydberg admixed inter-atomic interactions	Humanities & Social Sciences	University of Nottingham	Indian Institute of Science Education and Research Pune
14	Promoting sustainable pilgrimage and the protection of heritage sites in Gujarat and Uttar Pradesh, India	Climate Research	Durham University	The Maharaja Sayajirao University of Baroda
15	Establishing a UK-India Research Methods Node: Fostering and Consolidating Research Training and Collaboration in the Social Sciences and Humanities	Humanities & Social Sciences	SOAS, University of London	Tata Institute for Social Sciences, Mumbai
16	Study on novel fuels for lower particulate emissions and engine compatibility	Physics & Engineering	University of Sheffield	Indian Institute of Technology, Bombay

17	Nanoscale writing of bespoke Graphene devices for electronic and plasmonic scalable technologies	Material Science	University of Surrey	Indian Institute of Science Education and Research, Thiruvananthapuram
18	Chick Embryo in vivo xenograft model for Ocular Cancer studies	Human Health	University of Liverpool	University of Hyderabad
19	From charm to beauty: towards a precision measurement of the CKM angle	Physics & Engineering	University of Oxford	Indian Institute of Technology, Madras
20	Characterization and Production of Nanofuels (CHAPNA)	Physics & Engineering	Coventry University	Indian Institute of Science, Bangalore
21	Full Duplex and Cognitive Radio Architectures for Spectrally, Efficient Communications (FD-CR-ASEC)	Physics & Engineering	Heriott Watt University	National Institute of Technology-Tiruchirappalli
22	Developing earth based building products utilising solid wastes	Physics & Engineering	University of Bath	Indian Institute of Science, Bangalore
23	'Mainstreaming' of the Financial inclusion Agenda in India	Humanities & Social Sciences	University of Essex	Indian Institute of Management, Bangalore
24	Access to land: Implications of customary and private land rights for food security	Humanities & Social Sciences	University of Hertfordshire	Periyar University
25	Integrating social and health care for improved management of health conditions in India: International Social Work paradigm	Social Science	University of York	Rajagiri College of Social Sciences

UKIERI Department of Science & Technology Partnerships 2017-18

S. No.	Project Title	Project Area	UK Institution	Indian Institution
1	Integration of space based SAR (BIG) data with ground based information for an improved near real time assessment and monitoring of seismic hazard.	Cyber Physical Systems	University of Leeds	CSIR-Central Scientific Instruments Organisation, Chandigarh
2	Longshore Sediment Transport Simulations in a Changing Climate	Environmental sciences	Swansea University (Prifysgol Abertawe)	Indian Institute of Technology, Bombay
3	Bioinspired green catalysts for water purification	Environmental sciences	University of Manchester	Indian Institute of Technology, Guwahati
4	In-situ bioremediation of non-aqueous phase liquids (NAPLs) pollution within the Baddi-Barotiwala Nalagarh (BBN) Industrial Area in Himachal Pradesh, India	Environmental sciences	Loughborough University	Indian Institute of Technology, Roorkee (IITR)
5	Photo-Rechargeable Perovskite Batteries for Future Mobility	Future manufacturing	University of Cambridge	Jamia Millia Islamia
6	Flexible Supercapacitors based on conducting polymer coated metal oxide aerogel nanostructures	Future manufacturing	University of Bradford	Indian Institute of Technology, Delhi
7	4D Micro-Stereolithography Printing of Scaffolds using Plant Oil Polymers and Graphene for Various Functional Biomedical Applications	Future manufacturing	Cranfield University	Vellore Institute of Technology, VIT University
8	Capacity building in rhizobacteria mediated plant stress resistance for Indian agriculture	Environmental sciences	Imperial College of Science, Technology and Medicine (also known as Imperial College London)	Gujarat University
9	An advanced integrated process for the treatment of sewage plant effluent using bio-based antimicrobial metal biosorbents and photocatalytic nanocomposite materials	Environmental sciences	University of Strathclyde	Indian Institute of Technology, Guwahati
10	Using sedimentary DNA to unravel the long-term impact of environmental changes on human health and subsistence in India	Environmental sciences	University of Cambridge	Birbal Sahni Institute of Palaeobotany, Lucknow
11	Surface functionalization for food, packaging and healthcare applications	Future manufacturing	University of Birmingham	Indian Institute of Technology, Bombay
12	Robust Cyber Security Framework for Longitudinal Smart Energy Monitoring Device Data (CS-SED)	Cyber Physical Systems	University of Southampton	CSIR - Central Mechanical Engineering Research Institute, Durgapur
13	Monitoring of PAHs and heavy metals in sediments of industrial estuaries, Glasgow and Yamuna River: PCR based detection of catabolic plasmids/genes in PAHs degrading and multi resistant bacterial isolates and their genotoxic potential	Environmental sciences	University of Strathclyde	Aligarh Muslim University
14	Sensing and Security for Smart IoT	Cyber Physical Systems	Queen Mary, University of London	Indian Institute of Technology, Delhi

15	An In-depth Analysis of Abuses in Social Media - Integrating Cues from Language, Behavior and Networks	Cyber Physical Systems	Cardiff University	Indraprastha Institute of Information Technology, Delhi
16	UCL-IITI Partnership: Development of 3D Printable Biomimetic Hydrogels (Bio-inks)	Future manufacturing	University College London	Indian Institute of Technology, Indore
17	Automated Continuous Manufacturing Platform for Functional Nanoscale Materials	Future manufacturing	University College London	CSIR-National Chemical Laboratory, Pune
18	Vulnerability Assessment and Sustainable Solutions for Water Quality Management in the Urban Environment	Environmental sciences	Newcastle University	Indian Institute of Technology, Gandhinagar
19	Natural-Coloured Functionally Graded Rubberised Geopolymer System: A cement-less solution for optimised concrete paver manufacturing	Future manufacturing	University of Edinburgh,	Indian Institute of Technology, Indore

UKIERI Universities Grant Commission Partnerships 2017-18

S. No.	Project Title	Project Area	UK Institution	Indian Institution
1	Next-generation multiwavelength time-domain astrophysics: developing world-leading India/UK expertise	Science	University of Southampton	Inter-University Centre for Astronomy and Astrophysics, Pune
2	Cost Effective Production of Engineered Antibodies For Early Differential Diagnosis Of Dengue And Chikungunya Infection	Science	St George's Hospital Medical School	Bharathiar University
3	Seismic Design and Fragility Assessment of Retrofitted Structures: Influence of Aftershocks and Uncertainty Quantification	Science	University College London	Department of Civil Engineering Indian Institute of Technology Mumbai
4	Investigation of collective movement dynamics of blackbuck groups using aerial videography	Science	University of Glasgow	Indian Institute of Science, Bengaluru
5	Brain-like computing - Designing the basic building blocks for artificial neurons and synapses	Science	University of Manchester	Indian Institute of Science Education and Research, Thiruvananthapuram
6	Dielectric engineering on GaN for sustainable energy applications	Science	University of Liverpool	National Institute of Technology, Durgapur
7	(HiFlo-DAT): Indian Himalayan Flood Database, for Disaster Risk Reduction	Humanities and Social Science	Bath Spa University	University of Delhi
8	Ultrasound-responsive multi-layered microbubbles using electrohydrodynamic focusing device for oral cancer drug delivery	Science	University College London	Indian Institute of Technology, Gandhinagar
9	Developing Empowering Methodologies in Management Research	Humanities and Social Science	Open University	University of Delhi
10	Collaborative Medical Device Design Initiative - Co-MeDDI	Science	Cardiff Metropolitan University	King George's Medical University, Lucknow
11	The Sun under the microscope - An integrated research activity to maximise the science return from a new generation of missions to study the Sun	Science	Queen's University Belfast	Indian Institute of Technology BHU, Varanasi
12	Optimisation of recovery of valuable metals from waste printed circuit boards (WPCBs) through modified hydrometallurgical route	Science	University of Edinburgh	Indian Institute of Technology, BHU, Varanasi-221005
13	FRP shear strengthening of damaged concrete beams subjected to fatigue loading	Science	University of Birmingham	Veer Surendra Sai University of Technolog, Odisha
14	Novel EOR technique for the depleted oil reservoirs of Upper Assam Basin with simultaneous CO2 Capture and Sequestration	Science	University of Edinburgh	Dibrugarh University, Assam
15	Fostering Entrepreneurship for Sustainable and Inclusive Agri-Food Innovation: A comparative analysis of India and UK	Science	Leeds Beckett University (formerly Leeds Metropolitan University), Rose Bowl, City Campus, LS1 3HE	University of Calcutta

16	Molecular Magnetic Materials for Qubit Applications: Experiment and Theory	Science	University of Edinburgh	Indian Institute of Technology, Mumbai
17	Engineering of Metal Dichalcogenide based Photonic & Optoelectronic Materials for Device Applications	Science	University of Leeds	Indian Institute of Science Education and Research, Bhopal
18	Decision-Support Framework for Resilient Critical Infrastructure (CI) against Extreme Weather Events (EWE) and Climate Change	Science	University of the West of England	School of Planning and Architecture, Delhi

UKIERI

UK-India Education
and Research Initiative

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