

**UNIVERSITY OF PORTSMOUTH**

<b>Topic area</b>	<b>Sub-Topic</b>
<b>Engineering and Environmental Geology and Terrain Evaluation</b>	Waste-derived low carbon construction materials
	Use of Petroleum By-products in Concrete
	Detrital zircon and rutile ages in sedimentary rocks of Nigeria to trace tectono-metamorphic evolution
	Stratigraphy of petroleum sedimentary resources using detrital zircon geochronology
	Geology, geochemistry and mineralisation of the Precambrian basement complex terranes of Nigeria
	Nigerian meteorites: advances in planetary science from important natural and cultural heritage
	Applied geology, including geological hazards
	Biostratigraphy / Applied micropalaeontology
<b>Environmental and Human Geography, Risk and Decision Making</b>	Remote sensing of glaciers
	Fluvial geomorphology (river processes, modelling and management)
	Sediment and soil analysis, environmental reconstructions
	Wildfire: Hazards and Management Issues
	Water quality, domestic use strategies and practices
	Functionality of rural water supply systems for domestic use
	Building capacity and the role of Nigeria's youth in the oil and gas industry
	Addressing the Gender gap in Nigeria's oil and gas industry
<b>Environmental and Marine Environmental Science</b>	Oil and gas industry, employment, entrepreneurship in communities
	AI-driven Sustainable Risk Decision-Making for Oil and Gas Construction Projects
	Crustacean health and pathology
	Observing and modelling spatial patterns of climate change
	Metal contamination in surface sediments
	Sclerochronology - Use of mollusc bivalves as environmental proxies
	Novel low-cost acoustic technologies for monitoring biodiversity in the Niger Delta
	Oil & Gas Industry and Environmental Health Burden
Application of AI in environmental prediction and adaptation to climate change	
<b>Environmental Biology and Biogeochemistry</b>	Smart Agriculture
	Environmental rehabilitation and waste management
	Sustainable and Renewable Energy : Decarbonisation via Engineering Biology techniques
	Engineering natural enzymes for Carbon sequestration
	Biocorrosion

	Microbial degradation of organic matter and oil biodegradation
	Coastal blue carbon capacity
<b>Soil and Water quality: pollution, contamination and Ecotoxicology</b>	Groundwater hydrochemical assessment to investigate contamination
	Nutrients in freshwater - water quality
	Advanced recycling technologies for plastic waste to reduce our dependence on petrochemical feedstocks
	The effects of environmental pollution on marine and freshwater organisms
	Microplastics: quantification, impacts and solutions
	Impact study and remediation of polluted environmental waters
	Tyre compounds - road run off chemistry analysis
	Metal bioremediation
	Atmospheric Chemistry/Physics of Oil Producing Regions
	Analysis of pollution using amphibian models
	A Multi-criteria Decision Approach to prioritising groundwater remediation in Nigeria
	NIR Spectroscopy for In situ monitoring and finger-printing of oil degradation in the Niger-Delta.
	Investigating natural attenuation of oil contaminants in soil or water.
<b>Technologies for the Energy Transition</b>	Energy transition framework for addressing hydrocarbon resource control
	Energy Storage and transportation systems, including Hydrogen and battery technologies
	Energy generation systems: Solar, wind, thermal
	CO2 Sequestration and Fluid Floor Modelling
	Sustainable Composite Material
	Robotics and AI
	Cybersecurity and Forensics