

# IoT, Big Data and AI: Innovating STEM Teaching Through Strengthening Teacher Professionalisation

## Peer-to-Peer Knowledge Building Session #2

Wednesday, 05 November 2021 | 13:30 – 16:00 (CEST)

Join Us at the Peer-to-Peer Session:

<https://zoom.us/j/437007825?pwd=K2I2QU1FdWFkN3ZyWEFwNzMrUjBFUT09>

Password: classnet

### Introduction

The peer-to-peer knowledge building phase is designed to encourage group discussions and exchanges on lessons learnt from the thematic and technical sessions. These sessions are an opportunity for informal group learning.

The 2<sup>nd</sup> peer-to-peer knowledge building session will mainly focus on enhancing participants' knowledge and understanding on the Internet of Things (IoT), Big Data, and Artificial Intelligence (AI) as well as using the ScienceScope's IoT Exploratory Platform where weather data are collected. The key aim of the session is to provide an informal platform to the participant teachers to deepen their understanding on the technical topics of the project, practice technical skills and understanding needed for building the Teaching Modules, and to raise any questions they may have on the themes covered during the thematic training period. Teachers and their students are highly encouraged to participate in this interactive session which includes quiz and games on various aspects related to all 5 technical sessions. Teachers should have their own laptop while students can either have their own device or share the computer/laptop with another one or two partner students.

### About the Facilitators



**Ms Leonie Nagarajan**  
Director, Education Department  
Asia-Europe Foundation (ASEF)

As the Director of the Education Department, Ms Nagarajan is responsible for leading the department in the conceptualisation and execution of a programme portfolio covering 51 countries across Asia and Europe. Her work addresses education policies and higher education cooperation, activities in the field of lifelong learning as well as experiential learning and skills development for young people. Her professional career covers the fields of international relations, communication, and public affairs. She has a Master's degree in Communication Sciences with minors in Cultural and Political Sciences from the Free University and the Humboldt University of Berlin.



**Ms Jyoti RAHAMAN**  
**Project Executive, Education Department**  
**Asia-Europe Foundation (ASEF)**

Ms Rahaman leads the research, policy & programme development of projects under the ASEF's Teaching and Learning Programme and co-coordinates the ASEF Classroom Network (ASEFClassNet) Project. Prior to joining ASEF, she worked with the Education Policy Unit Team at the UNESCO HQ in Paris and the Norwegian Centre for ICT in Education in Oslo. She obtained her Erasmus Mundus Joint Master Degree (EMJMD) on Education Policies for Global Development from the Autonomous University of Barcelona, University of Oslo and University of Malta. Her dissertation based on a field research in an innovation award winning Norwegian High School explored the challenges of innovating learning environment in schools to prepare learners for the 4th Industrial Era.

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**Dr David CRELLIN**  
**CEO & Founder**  
**ScienceScope Ltd**

David was educated at the University of Bristol and the University of Cambridge. He has over 30 years of expertise in the EdTech sector, ranging from consultancy, research to entrepreneurship. David holds directorships in EdTech businesses in the UK, South Africa and Singapore. As the founder of ScienceScope, he collaborated with BBC on a nationwide and award winning micro:bit project.

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**Mr Josh WRIGHT**  
**Software Engineer**  
**ScienceScope Ltd**

Josh is currently a Software Engineer at the ScienceScope Limited. He graduated from the University of Bath with BSc Honours in Computing in 2016. He is responsible for the overseeing of the design, implementation, and development of ScienceScope's IoT sensor system (IoT @ School) built on the Microsoft Azure platform. He is also responsible for conducting research in different sensing solutions and how new sensors can be integrated in the ScienceScope system during the product development phase. It includes the design and testing prototypes which could then become a finalised product. Joshua is also specialised in using 3D design software and 3D printers to rapidly prototype the designs and ideas while maintaining the lower cost of development.

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