Institute of Physics – L&SE Branch – Retired Members Section
AT HOME
Big Data and AI
THURSDAY 17 January 2019

This meeting has been organised by Bill Metcalf at the IOP new headquarters near King's Cross.

This meeting is in two parts: a morning session devoted to the science and technology of both Big Data and Artificial Intelligence (AI), and an afternoon session devoted to a selection of application areas. The technical input is on big data, data analytics and artificial intelligence; the application areas are healthcare, pattern recognition and natural language processing. The day will conclude with a session on ethics and the societal impact of these new technologies.

Venue   **The Institute of Physics, 37 Caledonian Rd, Kings Cross, London N1 9BU**

Programme

10:00   Registration and coffee

10:30   Welcome and notices

10.45   What is 'Big Data'? Data sources; data mining; personal data; scientific data

11.30   Data analytics: predictive analytics; applications inc. target marketing and law enforcement

12.15   Artificial Intelligence (AI): history; neural networks; deep learning; examples

13:00   **LUNCH** and opportunity to explore the new IOP headquarters

14:00   AI in healthcare: medical diagnostics; drug discovery; personalised medicine

14.45   Augmentation: speech recognition; facial recognition; pattern recognition; natural language processing

15.30   Ethics: personal data; societal impact;

15.45   Summary and questions

16:15   Tea plus an opportunity to explore the IOP's new headquarters building

Costs   **Free:** but £35 with lunch for a maximum of 50. There are plenty of eating places in nearby streets.

This is a London & SE Branch meeting and is open to visitors and the public free of charge.   Please register on the London and SE website as spaces are limited   http://www.iop.org/activity/branches/south_east/lse/ If you want lunch, which is a REMS event, please use this same link.

Getting there: Tube or train to King's Cross and then walk (approximately 5 minutes).

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Abstracts and CVs will be available later for those who register.