NEWS IN BRIEF

Professor Katherine Newman-Taylor

A child supported by Dream a Dream

MAKING DREAMS A REALITY FOR DISADVANTAGED CHILDREN

Indian non-governmental organisation Dream a Dream (DaD) works with children and young people to develop the social, emotional and cognitive 'life skills' that have been compromised by growing up in poverty. The World Health Organization defines life skills as the abilities we all need to manage the demands and challenges of everyday life (WHO, 1997).

As part of a research and knowledge exchange collaboration, University of Southampton researchers from the School of Psychology have been sharing psychological, clinical and statistical expertise to support DaD in its mission, alongside training and supervision providers GreenWood Mentors Ltd. Dr Fiona Kennedy and Dr David Pearson have been involved with DaD since 2006, joined more recently by Professor Katherine Newman-Taylor.

"We are supporting DaD to optimise their programmes by drawing on psychological theory and practice – including cognitive behavioural therapies and attachment principles," said Katherine. "We are also helping DaD measure the impact of their work on the social, emotional and cognitive development of children and young people."

The partnership has resulted in several collaborative papers, and initial trials have helped DaD to demonstrate that their educationally framed programmes have a considerable impact on children's development – putting these young people in a much stronger position to live well and find work in ongoing challenging circumstances.

DO WOMEN ON CORPORATE BOARDS IN INDIA MAKE A DIFFERENCE?

Associate Professor Anita Krishnan (Southampton Business School) has examined the impact of women on corporate boards of listed companies in India on their financial performance. Using a mix of market-based and accounting-based performance measures, she analysed data from 612 companies listed on the BSE (formerly Bombay Stock Exchange) between 2018 and 2023, focusing on the roles of women executive directors, non-executive directors, and women in leadership positions such as committee chair or CEO.

"Overall, having more women on boards was linked to stronger company performance in market measures," said Anita. "However, when broken down by specific roles, the impact was often negligible or slightly negative."

Anita's research highlights a persistent lack of women in top leadership roles. Only 3.3 per cent of CEO positions were held by women across the study period. "There is a better chance of women being appointed as board members, although still not a critical mass," said Anita. 13 per cent of firms had no women board members and women made up just 17 per cent of the corporate boards sampled.

"This is despite India's Companies Act 2013 requiring these firms to have at least one woman on their board," commented Anita. Many western countries have set 30 per cent quotas and report a positive relationship between more women board members and corporate performance.

"Firms in India have historically been reluctant to appoint women as committee chairs or CEOs," said Anita. "Studies suggest that this reflects broader societal factors, including resistance to women in leadership positions."

Anita's research underlines ongoing challenges: "With 13 per cent of firms still non-compliant, my findings suggest that enforcement of existing laws must be improved. To achieve a critical mass and meaningful influence, I recommend setting a mandatory 30 per cent target for women's representation on corporate boards."

Associate Professor Anita Krishnan

3.3%

Only 3.3 per cent of CEO positions were held by women across the study period

Professor Lajos Hanzo

BUILDING THE NETWORKS OF THE FUTURE THROUGH UKI-FNI

Southampton academic Professor Lajos Hanzo from the School of Electronics and Computer Science has been appointed to the management board of the UK-India Future Networks Initiative (UKI-FNI), a landmark £1.1 million project to revolutionise the future of telecoms.

Led by Professor Gerard Parr from the University of East Anglia, with partners in multiple UK and Indian universities, this strategic collaboration will explore supply chain innovations for the hardware and software systems that support telecoms networks. The project will also develop a joint research strategy for the integration of terrestrial and non-terrestrial networks.

"Professor Parr (UEA), Professor Steve Hailes (UCL), Professor Toktam Mahmoodi (KCL) and myself have enjoyed a long and fruitful collaboration with the Indian research community, including the Indian Institutes of Technology in Delhi, Chennai, Hyderabad and Mandi, as well as with the Indian Institute of Science in Bangalore," said Lajos. "This new project allows us to deepen and broaden our outreach to the wider telecommunications community in India and in the UK."

As part of a related UK-India initiative with the University of Surrey, Lajos and the team were also successful in attracting additional research funding for innovating in the emerging field of integrated sensing and communications. "This project will look at new solutions for how wireless systems detect human activity, perceive and interpret their surroundings, and locate objects," said Lajos.

ELECTRICITY FROM HUMAN WASTE WITH MICROBIAL CELL TECHNOLOGY

Microbial Fuel Cell (MFC) technology developed by Professor Yannis Ieropoulos, Head of the Civil, Maritime and Environmental Engineering Department at the University of Southampton, is making it possible to generate electricity from the sanitation of human waste. Microbes in the fuel cell break down organic matter, a process which both supresses the pathogens involved in disease outbreaks, and converts chemical energy into electricity.

Now thanks to funding from the Engineering and Physical Sciences Research Council (EPSRC), the European Commission and the Gates Foundation, and partnerships with Birla Institute of Technology and Science (BITS) Pilani and Indian Institute of Technology (IIT) Palakkad in India, the technology is ready for commercialisation.

"The Gates Foundation has supported us to the point where the technology can be bought off-the-shelf, and made accessible to Low- and Middle-Income Countries (LMICs) like India," said Yannis. BITS Pilani has integrated Yannis's technology with their own systems and are trialling in Goa; IIT Palakkad is using it to train their sanitation engineers.

"We're envisaging the technology going into communal toilets in rural communities, or being built into households, where it could supply electricity for lighting or phone charging," said Yannis. "We are hoping to see it deployed in as many environments as possible."

On top of energy generation and sanitation, the microbial cells have environmental benefits too. "It is a natural process – we're enhancing the natural environment's ability to deal with the organic pollutants that we have been mismanaging for decades."

Professor Yannis Ieropoulos

A prototype of the microbial fuel cell