M2A
MATERIALS AND MANUFACTURING ACADEMY

Case Studies

Ashley Pursglove

Ashley Pursglove gained his BSc (Hons) in Applied Chemistry from The University of Leeds in 2009.

As this was the height of the economic crisis he found work packing boxes in a warehouse in Wigan. After several months a job offer from BASF found him starting work at BASF Coatings LTD in Deeside, North Wales.

Following several months of work on coating properties and adhesion work, BASF offered to sponsor him through an MRes and an EngD at Swansea University.

Throughout the Masters and EngD projects he garnered a large skill set in a variety of areas from the novel synthesis of metallic nano-particles to modification of compounds to afford novel substrates for photo-degradation. This large skill base allowed Ashley to contribute to many areas of the work undertaken at SPECIFIC.

Work in the photovoltaic group involved the synthesis and inclusion of core/shell nano-particles into photovoltaic devices in an effort to improve the efficiency and lifetime of the cells.

Becoming one of the senior members of the water treatment group (WTF Group) saw Ash developing the way in which the water treating photo-catalytic compounds were adhered to substrates giving unprecedented adhesion.

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Further developments in this area include the implementation of novel substrates such as concrete and glass fibre to increase the rate of water treatment by an order of magnitude.

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As his time on the EngD came to a close, BASF in conjunction with SPECIFIC have taken on Ash as BASF Global's representative at SPECIFIC using the speed and power of SPECIFIC's research capabilities to benefit BASF and the wealth and depth of knowledge of BASF to complement and aid SPECIFIC.

Making use of his experience, he is also overseeing the current BASF EngD and MRes students guiding them through the labyrinth that is a postgraduate program.

Having been involved in outreach programs such as "Materials Live!" through his postgraduate scheme and also as a result of becoming bored easily, he and a colleague set up "The Movement Labs" (TML).

Starting out as a company devoted to rapid prototyping of new technologies using low overhead manufacturing processes, media attention from some YouTube videos quickly transformed The Movement Labs into a science and engineering channel.

Showing how abstract experiments can give interesting results is the main focus of TML from weaponising Christmas puddings to calculate escape velocities of rockets to jumping off a cliff into the sea to calculate the mass of the earth.

TML also Provide educational supplements to schools either by visiting and teaching the scientists and engineers of the future or buy supplying science kits free of charge to the schools to help make science education more interactive and interesting.

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