

PERSONAL INFORMATION

First name(s) Surname(s)



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POSITION Head of national Centre for Advanced Tribology in Southampton

EDUCATION AND WORK EXPERIENCE

Tomas Polcar graduated in 2000 in Engineering with a Master thesis focused on the design of a hot-water boiler burning green wood with a nominal power of 10 MW. Then he completely switched the scale from meters to nanometers when studying for a PhD in Mathematical and Physical Engineering at the Czech Technical University in Prague; the thesis was on the high temperature tribology of protective coatings. After finishing PhD in 2005, he moved to the University of Coimbra, Portugal, as a postdoctoral researcher. In 2008, Tomas returned back to CTU in Prague as a lecturer. He is the Head of Advanced Materials Group, which he launched in 2008; he was promoted to associate professor (2012) and full professor (2015) in applied physics. Tomas moved to Southampton as Lecturer in Coatings and Nanotribology in 2011 and was promoted to associate professor in 2014. Tomas is the Head of national Centre for Advanced Tribology (nCATS) from 2015.

Tomas has extensive funding track record from funding bodies in the Czech Republic (GACR, MPO), Portugal (FCT), UK (TSB, EPSRC, DSTL), and EU (FP7, H2020) (about £7M in 23 projects) and number of industrial collaborators. His research covers large area of surface engineering, particularly design, deposition and characterisation of thin films. He pioneers novel self-lubricant coatings with self-adaptive nanostructure and high temperature tribology of thin films. He is active in various areas of material science, such as controlled diffusion, radiation damage of materials, properties of low-dimensional materials or tribology in Bronze Age. Finally, he launched two start-ups and is owner of AdvaMat company.