Our team

Dr George Maistros: Dr Maistros is the Technical Director of ADVISE-DETA and he manages the technical activities of the company. He is a Chemical Engineer from National Technical University of Athens and has received his PhD in Advanced Materials from Cranfield University in 1991, focusing on the dielectric cure monitoring of thermoset resin systems. He has over 20 years of experience in promoting dielectric sensing systems for a wide range of materials and processes. He has coordinated five European industrial R&D projects on applications of dielectric technology on composites manufacturing processes. He is the Project Manager of GRAPHOSITE.

Michalis Galatoulas: Mihalis is the Systems Developer of ADVISE-DETA. He is a Mechanical Engineer (graduated from University of Patras, Greece in 2001) and received his MSc from Department of Financial and Management Engineering of University of Aegean, Greece in 2014. He has over 10 years of experience in the development of algorithms for analysis and optimisation of complex multi-variable systems. He has worked in several Aeronautics EU funded projects (FP6, FP7, Clean Sky).

Main Contact

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GRAPHOSITE

A Graphene Sensor for Defect Detection and Predictive Maintenance in Composite Materials

www.graphosite.co.uk

ADVISE
ADVISE-DETA

ADVISE-DETA Ltd.

www.advise-deta.com

Innovate UK

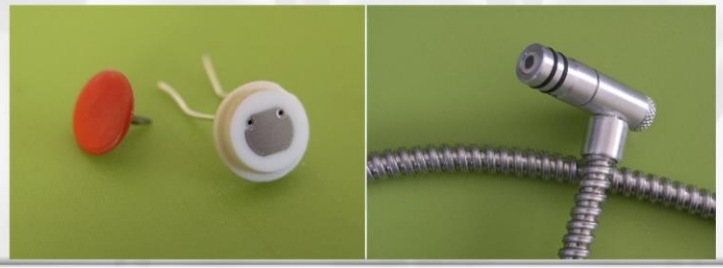
GRAPHOSITE is an **Innovate UK** Project, Ref: 104266

Who we are

ADVISE-DETA is a new company specialising in the design, construction and installation of in-process dielectric sensors and on-line monitoring and quality assurance systems for composites manufacturing processes. The knowledge and the IP rights of the relevant technology have been transferred to ADVISE-DETA from the Greek company ADVISE, which has a track record of developing quality control systems for advanced manufacturing processes as a result of research projects and bilateral collaborations with leading European and UK composite manufacturers.

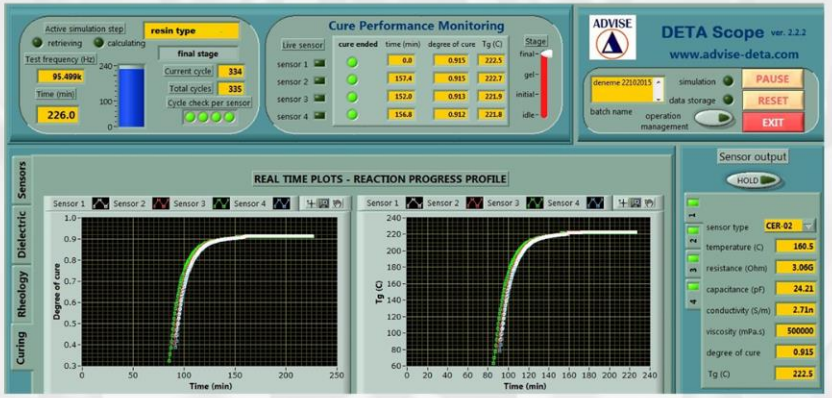
ADVISE-DETA has established its 'process control and QA technology' laboratory in Bedford to support the installations of sensors, monitoring and quality control systems at leading composite manufacturing facilities in UK. The company has instrumented autoclaves, RTM moulds and pultrusion lines with dielectric sensors, advanced material state monitoring systems and on-line ultrasonic NDI testing equipment.

The core technology development within ADVISE-DETA lies with interdigital sensors, which have been applied to several fields, among other to cure monitoring, inspection and diagnostics of membranes purifying gases and nanomaterials dispersion in liquids. Around the sensing elements, the company has developed measurement electronics, software tools for data acquisition, modelling, simulation, optimisation and process control.



Our products and services

The activities of ADVISE-DETA are focusing on the application of measurements of the dielectric properties of the reacting resin to the process monitoring, optimisation and control of composite materials manufacturing. The company has developed all the components of a complete Cure Performance Monitoring System, **DETA SCOPE**, linked to highly durable dielectric sensors fit for batch and continuous processing of composites. The readings from the sensors are translated in real-time to actual material properties (i.e. viscosity and degree of cure). The operation of the system can improve the efficiency of production by determining optimal process conditions, which are inherently affected by the type of material and the geometry of structure.



Other products of ADVISE-DETA include **DETA GEL** (quality assurance system through gel detection and die profiling for pultrusion industries), **DETA LEARN** (cure profile optimisation software suite for composites manufacturing), **DETA HEAT** (multi-zone heating systems for self-heated tools) and **PUL-NDI** (on-line defect detection for composite profiles).