

Margarethus M. (Maarten) Paulides;



Current main affiliations:

- Scientific Director of the Center for Care&Cure Technology Eindhoven (C3Te)
<https://www.tue.nl/C3Te/>
- Associate Professor at Eindhoven University of Technology
- Head of the Electromagnetics for Care&Cure lab (EM4C&C)
<https://www.tue.nl/EM4C&C/>
- Associate Professor at Erasmus MC Cancer Institute

Research profile

Maarten Paulides is Director of the Center for Care and Cure Technology Eindhoven (C3Te) of the Electrical Engineering department at Eindhoven University of Technology (TU/e). In addition, he is Associate Professor both in the Electromagnetics group of TU/e and at the Department of Radiation Oncology at Erasmus MC Cancer Institute in Rotterdam. A main theme in Paulides' career has been the development and validation of applications for hyperthermia to enhance the effectiveness of cancer treatment on head and neck tumors. Hyperthermia has the ability to increase the effectiveness of radiotherapy and chemotherapy treatments, or to reduce side effects by allowing the same effectiveness at a reduced radiation or chemotherapy dose. This is very important in head and neck tumors, since they form in an anatomically very fragile and complex area of the body.

In his early career, Paulides focused on developing hyperthermia equipment, but over the years his focus has shifted to developing simulation- and MRI-guided interventions and assessment of the clinical benefit of head and neck hyperthermia. His work resulted in novel hyperthermia applicators, patient-specific simulation technology and pioneering data for improving electromagnetic exposure guidelines.

Paulides specializes in electromagnetic simulations, antenna design, hyperthermia technology, magnetic resonance imaging and MR-guided intervention. Validation has always been a focus point of his, leading to expertise in clinical studies and treatment assessment.

In his role as Director of C3Te, Paulides facilitates and stimulates cross-disciplinary research and valorisation in the area of medical applications.

Academic background

Maarten Paulides holds an MSc degree in Electrical Engineering (2002) from Eindhoven University of Technology (TU/e) and a *cum laude* PhD in Health and Medical Physics (2007) from Erasmus University Rotterdam. After obtaining his PhD, Paulides stayed at Erasmus University, as subsequently research associate, Assistant Professor and Associate Professor. In 2018, he returned to TU/e as Associate Professor. In November 2018, he became director of the Center for Care and Cure Technologies Eindhoven (C3Te), part of TU/e. Throughout his career, Paulides has served many times as technical committee member for the international congress on hyperthermic oncology (ICHO2012 & 2016), was a visiting researcher (Duke University Medical Center, GE Global Research Center) and adviser of several research groups/clinics (Chalmers/Göthenburg, Zurich University/Aarau clinic, Czech Technical University). He currently serves in the Dutch Health Council, ICNRIP/WHO, COST action CA17115 (“MyWave”) and co-founded Sensius BV, a startup in medical hyperthermia technology.

Links:

- Research center: <https://www.tue.nl/C3Te/>
- Research lab: <https://www.tue.nl/EM4C&C/>
- Personal page: <https://research.tue.nl/en/persons/margarethus-maarten-paulides>
- Linked-In: <https://www.linkedin.com/in/maarten-paulides-4bb30a1b/>

