

PhD position: Measurement of nanometer-sized features by electromagnetic scattering analysis.

The research project is related to the measurement of the nanometer-sized features that are produced in the optical lithographic process steps during the production of the newest- and future-generation silicon devices. The measurement and control of the actual 45-nanometer features and the future smaller ones ask for fast and reliable optical methods that are based on the far-field measurement of the scattered light over a broad range of wavelengths. An inverse electromagnetic scattering model should allow the reconstruction of the scattering features with the required nanometer accuracy. The project focuses on both the theoretical and experimental aspects of the scattering. Applicants should have graduated in physics. Knowledge of geometrical and/or physical optics is recommended. Delft University of Technology is a bilingual organisation. A good command of English (written and spoken) is essential, while a good command of Dutch is also preferred. The successful candidate will be employed by TU Delft for a fixed period of 4 years (48 months).

For further details on the position you are welcome to contact Prof. J.J.M. Braat, phone: +31 (0) 15 – 27 86146 or: +31 (0)15 – 27 81444, e-mail:j.j.m.braat at tudelft.nl. To apply, please send a detailed CV together with a letter of motivation to the Delft University of Technology, Faculty of Applied Sciences, attn. Prof. J.J.M. Braat, Lorentzweg 1, 2628 CJ Delft, The Netherlands; or apply online to: j.j.m.braat at tudelft.nl.