Dr. Michael Speidel

Dipl.-Phys.

Patent Engineer

Languages
German, English

Contact
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Technical Expertise
Automation and Robotics

Physics

New Digital Technologies

Medical Engineering

Legal Expertise
Patent and Utility Model Protection

Dr. Michael Speidel holds a doctorate in physics. He has been part of the Wallinger Ricker Schlotter Tostmann team as a patent engineer since the beginning of 2019.

In addition to his scientific education, Dr. Michael Speidel has experience in industrial sensor development and therefore combines practical, technical skills with scientific expertise in advising our clients to their benefit.

Technical Background

Studies of physics at the University of Heidelberg, the Ångström Laboratory, University of Uppsala (Sweden) and the John Curtin School of Medical Research, National University of Canberra (Australia) with major fields of study in biophysics and solid-state physics. His PhD at the Max Planck Institute of Nuclear Physics focused on the topic of anthropogenic atmospheric aerosol formation. At the Institute for Microsystems Technology (IMTEK) of the University of Freiburg, Dr. Speidel worked as a scientific employee (Post-Doc) in the research group for bio- and nanophotonics within the framework of his research fellowship of the German Research Foundation (DFG). His work focused on the three-dimensional interaction of colloidal particles by means of interferometric tracking in dynamic optical traps.

Industry:
+ SICK AG, Waldkirch – as a research engineer in industrial automation
+ Innovative Sensor Technology IST AG, Ebnat Kappel (Switzerland) – as a research engineer in sensor technology

Career | Expertise in Intellectual Property | Memberships | Selected Publications

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Technical Expertise

Automation and Robotics

Physics

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Medical Engineering

Legal Expertise

Patent and Utility Model Protection

Career

Since 2019 Patent Engineer at WR

Scientific employee (Post-Doc) of the German Research Foundation (DFG)

PhD at the Max Planck Institute for Nuclear Physics

Studied physics at the University in Heidelberg, at the Ångström Laboratory, Uppsala University (Sweden) and at the John Curtin School of Medical Research, National University of Canberra (Australia).

Expertise in Intellectual Property

Legal protection through his own patent applications during his work in industry, Dr. Speidel is currently completing his training as a Patent Attorney. His technical work focuses on physics, in particular medical technology, biotechnology, artificial intelligence (AI), optics and IT.

Memberships

+ German Physical Society e.V. (DPG)

Selected Publications

Michael Speidel, Alexandr Jonáš, and Ernst-Ludwig Florin, Three-dimensional tracking of fluorescent nanoparticles with subnanometer precision by use of off-focus imaging, Optics letters, Vol. 28, Issue 2, pp. 69-71 (2003).

Michael Speidel, Lars Friedrich, and Alexander Rohrbach, Interferometric 3D tracking of several particles in a scanning laser focus, Optics Express Vol. 17, Issue 2, pp. 1003-1015 (2009).

M. Speidel, R. Nau, F. Arnold, H. Schlager, A. Stohl, Sulfur dioxide measurements in the lower, middle, and upper troposphere: Deployment of an aircraft-based chemical ionization mass spectrometer with permanent in-flight calibration, Atmospheric Environment 41 (2007) 2427–2437.