



Eidgenössische Technische Hochschule Zürich
Swiss Federal Institute of Technology Zurich

The **Integrated Systems Laboratory (IIS)** at the ETH Zurich performs research in the field of physics-based computer modeling and simulation in nanoelectronics, optoelectronics and material science. We are offering a

PhD Student

**with a Master or Diploma degree of a university
either in Physics, Electrical Engineering, or Material Sciences**

Scope

Electron beams have established themselves as potential tools both in basic as well as applied sciences. In industry, electron beams with varying power and energy are being extensively employed for radiation processing of materials and have totally revolutionized this field. For example electron beam irradiation is gradually replacing the present methods of curing of dielectrics in cable manufacturing. The aim of the research is to circumvent the limitations of the traditional industrial approach by the development and use of physical modeling based on interaction of electron beams with matter. Modeling is based on numerical simulation, in particular for the accurate calculation of the dose distribution, instantaneous temperature, and

space charge distribution building up in electrical cables during electron beam crosslinking irradiation processes.

Requirements

We are seeking for a candidate holding a Master or Diploma degree either in Physics, Electrical Engineering, or Material Sciences with interest or experience in interactions of electron beams with matter, as well as a general flair for physical modeling of complex systems, and computer programming.

Offer

We offer an exciting and challenging position in a dynamic team of physicists and electrical engineers and the

opportunity to interact actively with the major academic and industrial players in the field. The participation in international conferences and the publication of scientific papers are strongly encouraged. The position will be remunerated with a 100% PhD student salary.

Application

Please, send your written application by letter post or in PDF format, including copies of degrees, certificates, grades and CV with the Keyword "EBXLINK" to:

ETH Zurich

Dr. Doelf Aemmer,
Integrated Systems Laboratory
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