

The Society for Microelectronics (GMe — Gesellschaft für Mikroelektronik)

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1. Goals of the Society for Microelectronics

The Society for Microelectronics (GMe) was founded in 1985 with the aim to “*support microelectronics technology and its applications*” in Austria. The GMe defines its tasks as follows:

- Support of university-based “high-tech” research in the areas of microelectronics, semiconductor technology, sensors, and opto-electronics;
- Operation of research facilities;
- Support and consulting for industry, in particular, for small and medium enterprises, within the area of microelectronics.

The central task of the GMe is to provide an internationally competitive *infra-structure* in the area of microelectronics technology. The GMe allocates funds to maintain research projects in the fields of semiconductor technology, sensors, opto-electronics, and ASIC design. Thus the infra-structure support generates a base for research projects that are funded by other funding agencies.

2. Activities of the Society

The present focal point activities of the GMe are:

- Operation of university-based laboratories for microelectronics technology;
- Design of application specific integrated circuits (ASICs) —TMOe.

The GMe currently supports mainly the first focal point activity but also coordinates the Austria-wide activities of the TMOe program.

The main task of the GMe in the area of microelectronics technology is the operation of the cleanroom laboratories in Vienna and Linz. The GMe has coordinated the construction of the Microstructure Center (MISZ — Mikrostrukturzentrum) in Vienna; the funds were supplied by the Austrian Federal Ministry of Science and Research. The GMe now finances a significant part of the operation costs for the cleanroom laboratories in Vienna and Linz.

2.1 Microelectronics Technology — Cleanroom Vienna

The following university institutes receive support within this focal point activity:

- TU Wien:
 - Institut für Festkörperelektronik
 - Institut für Industrielle Elektronik und Materialwissenschaften

2.2 Microelectronics Technology — Cleanroom Linz

The following university institutes receive support within this focal point activity:

- Johannes Kepler Universität Linz:
 - Institut für Halbleiter- und Festkörperphysik
 - Institut für Mikroelektronik

3. Other Activities of the Society

In 2000, the GMe prepared its biennial seminar which took place at the Vienna University of Technology on April 5 and 6, 2001 under the title “*GMe Forum 2001*”. The seminar presented twelve invited lectures given by international experts, and 37 oral and poster contributions which resulted from work supported by the GMe. Great emphasis was put into making the seminar more attractive to an industrial audience, thus contributing to an improved knowledge transfer between universities and industry.

One of the declared tasks of the GMe is to provide information on current Austrian academic activities in the field of microelectronics to industry, in particular to Austrian small- and medium enterprises (SMEs). To enhance the distribution of the results of the research work done with GMe support, the GMe has put the contents of its annual reports — 1995 through 2000 — and the proceedings of the latest seminars organized by the GMe in 1999 and 2001 on its Web server. In late 2000, a new GMe Web server has been introduced. This server now provides a variety of search facilities into the reports, thus acting as a Microelectronics Knowledge Base. The server has apparently been fairly well accepted by the international community. Access statistics show an average of 72 requests per day; an amazingly large percentage of the accesses to the GMe server — about two thirds — originates from net domains outside Austria. The new GMe Web server is available under the address:

<http://gme.tuwien.ac.at/>

4. The Annual Report for 2000 of the Society for Microelectronics

The GMe is currently supporting the microelectronics technology activities of the cleanroom laboratories in Vienna and Linz. All projects described in this report were carried out in the cleanrooms in Vienna and Linz, respectively. They are *not* specific projects of the GMe but were funded by a variety of other sources. They all have in common that they use the infra-structure provided by the GMe. It would therefore not have been possible to carry out these projects without the support by the GMe.