

### **RoodMicrotec Newsletter**

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# RoodMicrotec presents its services at industry fair

RoodMicrotec had a presentation stand at the 'embedded world 2013' fair in Nuremburg. The fair, which was attended especially by design houses and fabless companies, was a great opportunity for us to present ourselves as a service provider to these parties.

On 26 February Jürgen Gruber gave a presentation entitled 'Chip modification with focused ION beam' explaining how the development time of a chip can be

significantly reduced using FIB. The presentation was well attended and gained positive reactions. As we have stated in our annual report, we consider organising seminars and attending fairs as an important tool to show off our activities. The fair in Nuremburg was a first step in this process in the new year.



## Design for Testability strengthens market position

'Looking back on our production test relocation from Stuttgart to Nördlingen, it's clear that it has had a positive impact on the organization,' explains Norbert Wirth (CTO), 'but as of the end of 2012 we are certain that we have everything under control, and we have achieved a great deal of synergy and far higher efficiency. We now do the same work with fewer people.

Our test engineering team consists of a good mix of skilled experts and young engineers directly out of universities. We are currently working hard on various projects, some of which in collaboration with design houses. In partnership between test engineers and design houses the test concept can be optimised. This process is also known as Design for Testability (DFT) and has the following benefits:

assuring the detection of faults in a circuit;

reducing the cost and time associated

with test development;

• reducing the execution time of tests on fabricated chips.

This will help us to strengthen our market position significantly. All in all, the relocation has made us a great deal stronger, and we are highly confident about the future.'

#### About Design for Testability

Design for Testability or DFT is a name for design techniques that add certain testability features to a microelectronic hardware product design. The premise of the added features is that they make it easier to develop and apply manufacturing tests for the designed hardware. The purpose of manufacturing tests is to validate that the product hardware contains no defects that could, otherwise, adversely affect the product's correct functioning.

Modern DFT techniques have to offer options that allow next generation chips and assemblies to be tested on existing test equipment and/or reduce the requirements/ cost for new test equipment. As a result, DFT techniques are continually being updated, such as incorporation of compression, in order to make sure that tester application times stay within certain bounds dictated by the cost target for the products under test.

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### RoodMicrotec: a supplier of a range of world-class specialist skills and services

Malkit Jhitta has many years' experience in ASIC design and supply. He started his career as an ASIC design engineer, then moved into applications, product marketing, business development, and then into sales & marketing. He has

been working in RoodMicrotec's sales & marketing team for some months now, specialising in building and maintaining relationships with major OEMs throughout Europe.

He explained that OEMs have fallen in number due to consolidation in the market over the past four years or so. Those who remain focus even more strongly on innovation and product design than before. As a supplier of a range of world-class specialist skills and services in qualification, reliability, test, quality engineering and supply chain management

#### About ASIC design

Application specific integrated circuits are, as the name suggests, a type of integrated circuit that is designed for a specific and dedicated use.

Almost all products that a person comes in contact with in everyday life, ranging from telephones to washing machines contains some sort of application specific integrated circuitry. This sort of technology encompasses everyday things like motion sensors, automotive applications, technology involving magnetic fields (debit and credit card readers), lighting, rollover detection innovations in higher end vehicles, video game consoles, and the iPad (tablet technology and its inherent applications). Ultimately, nearly everything in use today, every consumer product, every piece of electronic equipment, has some form of ASIC design at it's core.



RoodMicrotec is well positioned to profit from this. Furthermore, many products will need a refresh over the next few years. More functionality will be added to make the products even more attractive. This spells new opportunities for RoodMicrotec.

Asked how the various countries in Europe and outside will develop, Malkit answered: 'In the area of new product development, design, R&D and manufacturing it is Germany that has developed most strongly. In the UK there has been a major wave of consolidation and activities in the area of ASIC development have declined. France is probably a little less active than Germany and the UK, but there is still new product development and ASIC design going on. Israel is developing strongly, and this is a country RoodMicrotec will focus more on. Furthermore, we see that India, which has been strong in software for a number of years, is increasingly focusing on hardware, and therefore also on ASIC design. But at this point the country is in the early stages of ASIC development and has some way to go. All in all, this is a market in which RoodMicrotec can do good business, and I am looking forward to contributing to this.'

Colophon

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RoodMicrotec N.V., Netherlands "Rembrandt" Dokter van Deenweg 58 NL-8025 BC Zwolle The Netherlands Telephone +31 (0) 38 4215 216 Günther Lippold from RoodMicrotec will give a lecture on Thursday 16 at 2.00 p.m. in hall 12 about the theme 'failure analysis of optoelectronics and electronic components'.

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