

# FutureHorizons

The Global Semiconductor Industry Analysts



**FUTURE HORIZONS**  
Presents

*A Focused Workshop From*

**“The Silicon Chip”  
Industry Workshop  
Blakemore Hyde Park  
Hotel, London**

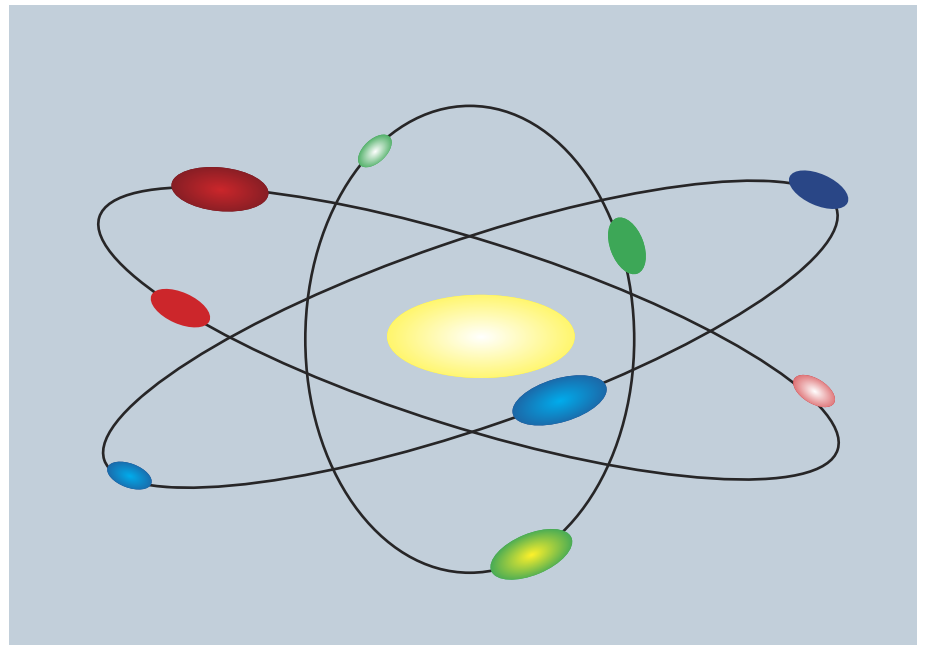
“Great explanation supported by  
theory & practical examples”

## **“The Silicon Chip” Industry Awareness Workshop**

**A One-Day Introductory Workshop To The Integrated Circuit  
Industry - Technology, Manufacture And Markets**

**Future Horizons**

The Global Semiconductor Industry Analysts



Electronics is now the biggest manufacturing industry in the world. What is more, it is growing at an average annual rate of eight percent per year and getting even bigger. With 90 percent of the world's total computing power ever made built in the last two years, the world is rapidly moving from being an industrialised society into the digital age. Driven by the relentless advances in semiconductor electronics, IC firms around the world are producing over 500 million transistors a second, each costing less than one thousandth of a US cent, one tenth the price of an office staple, daily turning alchemists dreams into show-stopping, commercial realities. The electronic circuits they produce are fundamentally, and irreversibly, changing the world we live in and with it, creating vast new industries and economic wealth. This seminar provides an opportunity for IT professionals to gain a complete insight into, and better understanding of, the silicon chip industry.

**Supported By:**



Future Horizons Ltd, • 44 Bethel Road • Sevenoaks • Kent TN13 3UE • England  
Tel: +44 1732 740440 • Fax: +44 1732 740442

Affiliates in Europe, India, Israel, Japan, Russian, San Jose California, USA

e-mail: [mail@futurehorizons.com](mailto:mail@futurehorizons.com) • [www.futurehorizons.com](http://www.futurehorizons.com)

In Russia, Tel: +7 495 228 0766

## Who Should Attend?

"The Silicon Chip" workshop is aimed at professionals working in, or involved with, the semiconductor and IT industry. It is ideally suited for individuals with a non-technical background.

- IT industry sales and marketing personnel from the equipment and materials suppliers, IC firms and electronic equipment systems houses
- Purchasing managers and buyers, administration, engineering, finance, production control, product planners and quality control employees from all aspects of the IT industry
- Human resources, IT recruitment and industry training personnel
- Government officials, public and private investors, and other financial organisations
- Media, PR and IT advertising organisations
- Others providing goods and services to the IT industry

## Benefits?

The Workshop provides a comprehensive insight into the electronics and IC industry: terminology; history; theory; technology; production process; economics and market application.

- Learn about the evolution of electronics, from vacuum tubes to single chip systems
- Receive an introduction to electronic systems, components and the various IC technologies
- Understand the basic production steps involved in IC manufacturing
- Review the economics of IC manufacturing, industry investment and market cycles
- Hear an overview of the size and attributes of the IC market
- Gain an understanding of the global importance of microelectronics
- The course material will provide an invaluable source of reference material

**“I finally understand how to recognise products & their use in technology”**

# Everything You Ever Wanted To Know About The IC Economic Industry ... But Were Too Afraid To Ask!

### Session 1: The Silicon Chip

- "World In A Grain Of Sand" Video
- Industry chronology
- The development of electronics - from the thermionic valve to complex ICs
- Semiconductor family tree
- IC types (logic, memory, microprocessors)

### Session 2: Basic Electronics

- Introduction to electronics theory
- Binary language & ASCII code
- Semiconductor materials & their operation
- The p-n junction & transistor operation
- Boolean algebra & digital logic explained

### Session 3: Semiconductor Manufacture

- Industry structure
- Polysilicon & silicon wafer production
- Wafer fab/front-end process (step by step)
- Back-end (wafer probe, assembly, final test & finishing) operations
- "Silicon Chip" video

### Session 4: Economics of IC Manufacture

- Wafer fab investment trends
- Cost structure & cost models
- Process yields & manufacturing defects
- Die size & cost reduction issues
- Back-end cost elements
- Typical device costs

### Session 5: IC Market Overview

- Market segmentation
- Company size
- Packaging & technology trends
- Industry learning curve
- Industry cyclicity
- Industry dynamics
- Market outlook

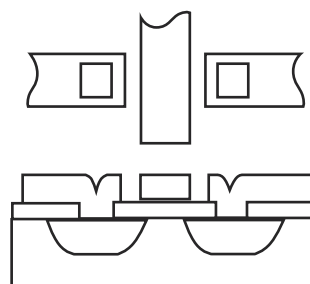
### Session 6: The IT Revolution

- Impact of Information Technology
- Market trends & industry outlook
- Impact of microelectronics

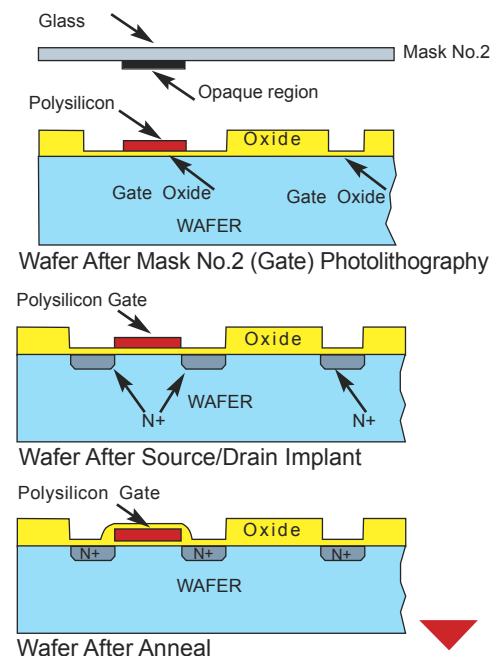
## What You Will Learn

1. Apply Photoresist
2. Align Mask
3. Expose
4. Develop
5. Etch (Poly)
6. Remove Photoresist

### Basic MOS Transistor



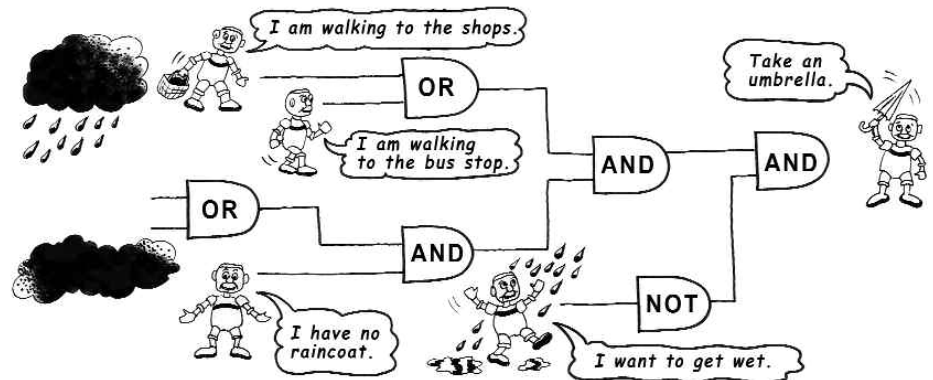
### Process Sequence - Mask 2



## This Workshop Provides A Complete Overview Of The IC Industry

Attendees will receive a copy of "The Silicon Chip" Workshop binder containing copies of the material presented, including a comprehensive Glossary of Terms detailing the most frequently used industry terms. "The Silicon Chip" Workshop is also available on an in-house basis, offering the added advantage of logistical convenience and timing flexibility. **Please call Future Horizons for further details.**

## From Simple Logic... To Complex Decision Making



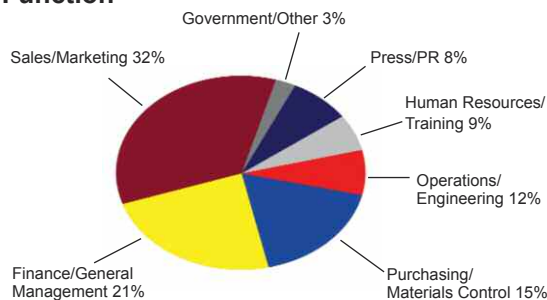
## The Digital Revolution - During This Workshop...

- 22,000 People Logged Onto The Internet For The First Time
- 32,000 New Customers Signed Up For Cellular Phone Services
- 150 Million Voice-Mail Messages Were Left
- 1.2 Trillion E-Mails Were Sent
- 15 Trillion Transistors Were Built

**“This has helped me structure my thoughts & plans for the company”**

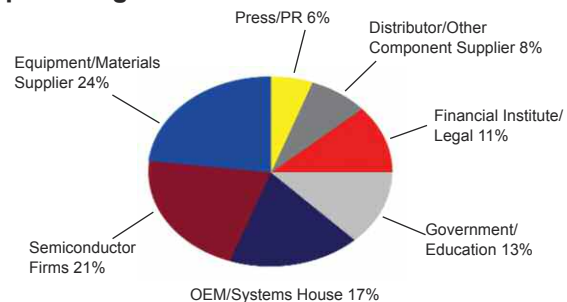
### Past Attendees

#### Job Function



### From These Companies

#### Type Of Organisation



Please Note

The Workshop Is Conducted In English

**“Fantastic day. I have already impressed potential clients with my industry knowledge”**

## Book A Place

To register your place contact Future Horizons for a Silicon Chip Registration Form. Call, email or [book online](#).

## Workshop Fee

Workshop fee includes course reference binder, lunch and coffee breaks. Workshop hours: 9.15am - 4.30pm (registration from 9.00am).

Our unique post-workshop feature provides a three-month complimentary enquiry privilege, for delegates to call with questions arising from the course material or related work issue.

## 10% Group Discount

For three or more delegates from the same company. To qualify, registration and payment must be received together. Or save yourself 30% if you book both the Silicon Chip and IC Economics Workshop at the same time, for your convenience both courses run over two consecutive days, saving both valuable time and money.

Tel: +44 1732 740440

e-mail: [mail@futurehorizons.com](mailto:mail@futurehorizons.com)

[www.futurehorizons.com](http://www.futurehorizons.com)

**Future Horizons Ltd**

44 Bethel Road | Sevenoaks | Kent TN13 3UE | England | Fax: +44 1732 740442 | In Russia, Tel: +7 495 228 0766

# Registration Information

Please Register Me  
For The Following  
"Silicon Chip"

## Industry Workshop

Send Completed Form By Fax/Mail Or  
Online @ [www.futurehorizons.com](http://www.futurehorizons.com)

### Registration

Registration should be made using this form - please copy for additional delegates to qualify for the group discount. Participation is subject to space availability.

Please register early to ensure workshop availability

### Group Discounts

10% group discount price applies to three or more delegates from the same facility registering at the same time with the registration fee paid on a single invoice.

### Cancellations

Cancellations made less than two weeks prior to the workshop are subject to a 50% cancellation fee and must be confirmed in **writing**, otherwise the full workshop fee will apply. Refunds will not be granted after the workshop date or for no-shows. Substitutions may be made at any time up to the workshop date and confirmed in writing to Future Horizons.

In the unlikely event that the workshop is cancelled, delegates will be notified and all fees paid will be refunded in full.

### All Workshops Must Be Pre-Paid IN FULL

It is the delegate's responsibility to ensure that payment has been made. The registration fee includes instructional costs, course presentation binder material, coffee breaks and lunch. Accommodation at the hotel is NOT included. If overnight hotel is required, please enquire about rates upon booking.

**UK VAT APPLIES TO ALL UK-BASED EVENTS**

Payment can be made by cheque (drawn on a **UK bank only**), or by bank transfer to:  
**Future Horizons Ltd**, Royal Bank of Scotland, 3a Edinburgh Road, Portsmouth, PO1 1DA, UK, Sort Code: 16:28:24 Account No: 11686316

Date	Venue	Check Box
Mon 23 April 2012	Blakemore Hyde Park Hotel, London	
Mon 11 June 2012	Blakemore Hyde Park Hotel, London	
Mon 10 Sept 2012	Blakemore Hyde Park Hotel, London	
Mon 19 Nov 2012	Blakemore Hyde Park Hotel, London	

**Also available In-House please call for details**  
**NB. Payments In UK Pounds Sterling Only**

### Delegate Details (Or Attach Business Card)

Full Name <i>Mr/Ms/Mrs</i>	
Job Title	
Company	
Full Postal Address	
Post Code	
VAT/TVA/MWS/IVA No.	
<b>(Please Note - This Must Be Supplied)</b>	
PO No.	
Phone	Fax
E-mail	
Special Diet?	Yes <input type="checkbox"/> No <input type="checkbox"/> If "Yes", specify:
Overnight Hotel?	Yes <input type="checkbox"/> No <input type="checkbox"/>

### Registration Fee (Per Delegate)

Standard Rate		Group rate (3 or more)	
Workshop Fee	£495.00	Workshop Fee	£445.00
VAT @ 20%	£99.00	VAT @ 20%	£89.00
<b>Total Fee</b>	<b>£594.00</b>	<b>Total Fee</b>	<b>£534.00</b>

An invoice will be sent by fax/email on receipt of workshop registration.

**Pre-Payment Mandatory** Payment by UK Cheque:  or Bank Transfer:

#### US Affiliate:

##### Pathfinder Research

13901 North 73rd Street, Suite 205  
Scottsdale, Arizona 85260, USA  
Tel: + 1 480 348 1133  
Fax: + 1 480 348 9745  
hfeeney@pathfinder-research.com

#### Israel Affiliate:

##### Amir Ben Artzi Content & Media

40 Derech Hayam St.  
Havatzelet Hasharon, 42937 Israel  
Tel: + 972 73 7367966  
Fax: + 972 9 8665799  
amir@amircm.com

#### Russian Affiliate:

##### ELINT

6th Floor, 40 Bldg  
1, 3y Proezd Maryinoy Roshchi  
127018 Moscow, Russia  
Tel: +7 459 228 0766  
Fax: + 7 495 787 3869  
elintsp@mail.ru

#### Indian Affiliate:

##### Pradeep Chakraborty PC Mediaworks

Tel: +91 99451 27632  
pradeepchakra@gmail.com

#### European Affiliate:

##### GMC Suisse

Ch. de la Dauphine 20  
CH-1291 Commugny  
Switzerland  
Tel: + 41 22 349 0939  
wladek@grabinski.ch

#### Far East Affiliate:

##### Semicon Research Ltd

Kagami Ishi Bldg., 1-11-7, Bunkyo-Ku  
Yushima, Tokyo 113, Japan  
Tel: + 81 3 5684 3941  
Fax: + 81 3 5684 3943  
o\_ohatake@semiconresearch.com