

# INTRODUCTORY WORKSHOP IN ELECTROSTATICS

To help understanding, assessment and tackling of electrostatic problems and opportunities.

## **Programme:**

09.30-10.00: Registration for Workshop and Coffee

10.00-10.15: INTRODUCTION (John Chubb)

Nature of static electricity. Basic physics. Range of practical problems.  
Importance of appreciating problems in context of practical 'systems'.

10.15-10.45: BASIC ELECTROSTATICS (Prof T. B. Jones, Univ Rochester)

Introduction to concepts, basic equations and relationships

10.45-11.15: DEMONSTRATIONS OF ELECTROSTATICS (Prof T. B. Jones, Univ Rochester)  
(for examples see <http://www.ece.rochester.edu/~jones/demos>)

11.15-11.45: MEASUREMENTS AND INSTRUMENTS (JNC)

Instruments and methods for measuring main parameters of relevance. Assessment of electrostatic conditions. Assessment of materials.

12.00-12.45: MEASUREMENT DEMONSTRATIONS (Paul Holdstock, BTTG and John Chubb, JCI)

12.45-14.00: Buffet Lunch

14.00-14.45: STANDARDS AND CODES OF PRACTICE (PH)

Standards: BS, EN, ISO & IEC; Codes of Practice: CENELEC  
Acceptance criteria. Limitations of present Standards. Directions of development.

14.45-15.15: ASSESSMENT OF SIGNIFICANCE OF STATIC (JNC)

Criteria for concern about static: ignition of flammable gases and dusts, shock risks, cling of thin films, damage to semiconductors, upset of microelectronic system operation

15.15-15.45: Tea

15.45-16.30: APPROACHES TO TACKLE PROBLEMS (PH, JNC)

- Changes to systems: earthing, avoid isolated conductors, reduce consequences, reduce charge generation, enhance dissipation, charge neutralisation, use only approved equipment
- Examples of practical problems and approaches to solve problems.
- Practical observations. Modelling

16.30-16.45: SOURCES OF INFORMATION

Books, Meetings, Conferences, Journals, Internet

16.45-17.15: DISCUSSION

*The lectures are backed up by Notes that provide fuller details and references for the material presented.*