

UK GTEM User Group

Minutes of the meeting held at BRE Ltd on 2nd March 2005

1. Present

Roger Dixon (RD)	Aeroflex Ltd [Chairman]
Ian Alderman (IA)	[Secretary]
John Wombwell (JW)	EMC Hire
Dave Farrand (DF)	EMC Hire
Howard Chetwin (HC)	MTL
Sean Saint	MTL
Richard Neyton (RN)	Apollo
Martin Alexander (MA)	NPL
Andy Perkins	Schaffner EMC
John Dearing	Schaffner EMC
Harbinder Bharj	BRE
Tim Williams	Elmac Services

2. Apologies received

Angela Nothofer	Nottingham University
Farquhar Galbraith	facility 'EMC Centre (Paisley) Ltd
Joe Wilkinson	facility 'EMC Centre (Paisley) Ltd
Stuart Bright	Echelon
Neil Coote	Nokia
Alan Hutley	Nutwood UK Ltd
Colin Howes	Doro UK Ltd
Tim Harrington	FCC
Ivan Yallup	Ampy Automation Digilog Ltd

3. Chairman opens meeting

The Chairman (RD) opened the meeting and welcomed all attending members, explaining that the date for this meeting had been moved to allow feedback from the Zurich meeting on IEC61000-4-20.

4. Minutes Of The Last Meeting

The minutes of the May meeting had been circulated and were accepted.

Matters arising were:-

- Item 6. GTEM Website – MA said that the NPL Reverberation Chamber information on <http://www.iee.org/OnComms/PN/emc/index.cfm> at EMC Educational Resources was given as an example of the type of information about GTEM cells that could be put on our website.
There then followed a general discussion on the web site and review of the suggestions offered made last time. The Apollo address had been spelt in error. [the address list is to be revised]
- Item 13. Champion 2 of BSI committee GEL/210/12 are Tony Maddocks/Dave Imeson, with DI agreeing to look after GTEM interests. We reported at the last meeting that the group was concerned that the 'Alternative Methods' clause was proposed to be deleted from IEC61000-4-3 which would disallow the use of the GTEM for immunity methods under this standard! The Chairman did write and Dave Imeson put it on the BSI website. However, at the recent BSI meeting to discuss this draft, the topic was raised but not much response was made to it (as mentioned by MA). Perhaps because the latest EN draft issued by BSI on 25Feb'05 does not appear to have the clause but it is not clear whether the IEC draft has it or not.

5. Schaffner EMC - Emissions and Immunity Software 'GTEM 3/Compliance 3'

John Dearing of Schaffner EMC gave an overview presentation of the many features of Schaffner's latest EMC Software product.

6. EMV Ltd – RadiSense EM Probe

Tim Hague brought along the new RadiSense Field Strength Probe mentioned at the last meeting and discussed its features.

- LASER Powered – No batteries!
- 10kHz to 4GHz 1V/m to 600V/m and 70 Samples /sec \pm 0.25dB over frequency range
- Drivers compatible with the HI4422 Holaday probe system
- 4 Channel version available
- 'DARE' costs ~ £6.5k total including the display
- Next development will take the frequency range upto 18GHz

Holaday – are developing a LASER driven version of their FP6005 probe to also remove the battery requirement.

7. EMC Hire – EMC Emissions and Immunity Software

Dave Farrand of EMC Hire gave a presentation of their EMC Software suite in particular showing the introduction of the constant power calibration method for field uniformity as defined in IEC61000-4-3:2002.

8. IEC61000-4-20

MA reported some notes from the recent SC77 CISPR JTF on GTEM cells in Zurich. MA was unable to give a full report of the meeting, as the minutes had not yet been released. The standard is currently in its Maintenance Cycle Report (MCR) stage. Angela Nothofer will continue as secretary and Andy Marvin has been nominated as Convenor in place of Heyno Garbe.

Some early results of a round robin using long cables were discussed. The next meeting is in Chicago in August 2005

9. New DTI Work Program

A 12 month NMS funded project to examine measurement methods for emissions testing in GTEM cells will start in April. There is some flexibility in what experiments can be done. MA said there was an open invitation to any industrial partner who has a particular measurement issue they would like to explore involving a GTEM. Please contact Martin Alexander at NPL.

10. No Height Scanning in the range 1 to 18GHz

The last CISPR meeting proposed that no height scanning is required where the height of the EUT lies within the 3dB beamwidth of the receiving antenna in the 1 to 18GHz. This is considered to be a retrograde step because an EUT is expected to have a multilobed radiation pattern and a measurement at one height could be in a null rather than on a peak, necessitating measurements at more heights to ensure that a peak is captured.

11. Physical Agents Directive – 18th Section - EMF

The EMF Corrigendum 89/391/EEC was published in the EU OJ on 29/4/2004 and is expected to become UK Law in April 2008.

The aim is to set minimum H & S requirements for work places for frequencies up to 300GHz. Employers must ensure their premises comply. OJ Dir 2004/40/EC 29th April 2004. Copies of this document are available from Martin Alexander.

martin.alexander@npl.co.uk

12. Exchange of news

- Sian Saint attended the meeting for the first time taking over as EMC technician at MTL from Michael Davies.
- Michael Davies has moved to 3C.
- Farquhar Galbraith and Joe Wilkinson now have their new facility 'EMC Centre (Paisley) Ltd
- Angela Nothofer has left NPL for a lectureship at Nottingham University – but will retain her interest in EMC matters
- Stuart Bright has now moved to Echelon
- Mike Kersey has left Nokia
- Tim Williams mentioned that he was doing a test training course later this year. See text at the end of the minutes.
- Tim Harrington – circulated a paper (by email) on correlation techniques
- Auto EMC Newsletter – Generic EMC Directive (Nov 2004) EMCTLA have run a seminar on this and will run a future one. .

13. AOB

- MA mentioned that DTI are funding a joint Industry project NPL + Partner with 50% funding. Applications to Martin Alexander asap .

'A Joint Industry Project (JIP) is an industrially co-funded project of short duration, which focuses on companies' needs. It allows companies to get leverage on researching specific measurement problems and to access the expertise and equipment of the NMS laboratories. It provides a vehicle for companies to collaborate with like-minded companies on common ground and allows them to play a key role in steering and executing the research' http://www.npl.co.uk/measurement_for_innovators/members/jips/

- MA also mentioned free DTI funded consultancy for up to 4 days available for SME's
- Rod Antenna Report now available – contact Martin Alexander for a pdf copy.

14. Next meeting

Proposed for 6th July 2005. Venue MTL

15. Close

The Chairman on behalf of the group thanked Harbinder Bharj and BRE for their kind hospitality in hosting the meeting.

Tim Williams and Chris Grimes will be repeating their successful EMC test methods training course, "EMC testing for IEC/CISPR standards", in June and November this year. This course will cover all the major tests required to meet the compliance requirements of the EMC and R&TTE Directives. These include conducted and radiated RF emissions, conducted and radiated RF immunity, and transient and power quality immunity. The course uses a combination of tutorials and exercises to maximize the understanding of the tests, using the facilities of a major accredited test laboratory. A particular feature is its strong hands-on content using sample and demonstration EUTs to illustrate significant issues and expand on the underlying theory of the tests.

The course was run last year under the auspices of the EMCTLA. It is aimed squarely at EMC test engineers and technicians: a basic knowledge of electronics is assumed; some prior knowledge of EMC testing is helpful but not essential. The course appeals both to accredited laboratories wishing to fulfil the training requirements of accreditation, and non-accredited laboratories and manufacturers' in-house testers. Design and project engineers will also gain an understanding of the tests that are applied to their products.

The dates for the week-long courses are 20th - 24th June 2005 and 7th - 11th November 2005: both will be run in Southampton, using the facilities of Hursley EMC Services. Delegates from both the UK and abroad will be welcomed. To download a full brochure with all details please visit www.elmac.co.uk or www.cegconsulting.co.uk, or ring Tim Williams on 01243 533361 or Chris Grimes on 02380 903081.

**** Proposed new course from ERA Technology ****

**Complying with the new Physical Agents Directive
June 2005 - date to be confirmed, ERA Technology, Leatherhead, Surrey**

Would this training course be of interest to you?

If so, please respond to this e-mail with a ' yes' in the subject box.
If you are interested in seeing the full programme, please e-mail events@era.co.uk

The introduction of the Physical Agents Directive will have a major impact on many manufacturers, operators and users of equipment and installations, where exposure to electromagnetic radiation needs to be considered.

This seminar will provide delegates with information on the latest developments of the Directive and plans for implementation; as well as outline the practical measures which should be taken for conformity assessment, and the procedures required to ensure that compliance is achieved.

This half day seminar will cover

- * Expected UK legal regulations
- * Impact on industry
- * Problems your company faces
- * Due diligence requirements
- * Compliance process and procedures.

The Events Team, AccessERA, ERA Technology Ltd + 44 (0) 1372 367117
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