



QRM MATTERS

Dear QRM Friends and Colleagues

News

We are pleased to announce the launch of our first QRM Newsletter; *QRM Matters*. The intention is to keep you informed and updated as to all QRM developments.

QRM 2007 and snow

St. Edmund, Quadrangle

QRM would like to extend their sincere thanks for all those authors, delegates and exhibitors who contributed to the 6th



International QRM

Conference at St Edmund Hall, University of Oxford, 22nd-23rd March, 2007. The conference was a resounding success with 41 papers from 13 different nations presented in the usual warm, welcoming surroundings of Teddy Hall. Thank you to all those delegates who have sent complimentary messages.

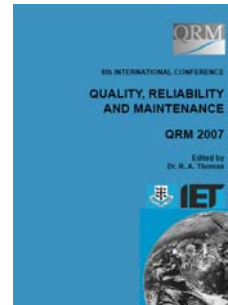
As usual the papers were of a high standard and QRM welcomed some established QRM friends and colleagues back to St Edmund but it was also good to see some new faces amongst the presenters. We hope to see the 'fruit' of their research at future QRM Conferences. Professor and Mrs. McNulty were warmly welcomed and added their valuable experience to the event presenting a key paper, chairing a session and contributing to paper discussions.

The social programme was well attended and received, beginning with the Welsh choral and harp recital from Ysgol Gyfun Gwyr, South Wales. The traditional wine tasting took place in the Ancient Dining Hall, the glorious banquet followed by a rousing performance from Professor McNulty on the bag pipes.

Our thanks are extended to our performing guests that helped to add the uniqueness of QRM. Photographs are available to view on the website www.qrmconference.co.uk. If any delegates have any photos they wish to share please forward them electronically to karen@qrmconference.co.uk.

There are also a number of proceedings and CDs of the conference available to purchase, again please contact the registrar. These are especially useful for multiple authors and young researchers.

QRM would like to thank Coxmoor publishers for their professional approach to the publishing and the final product and for the assistance offered at the conference.



QRM 2009

We are extremely pleased to announce the dates for QRM 2009 again at St Edmund Hall.

For your diaries:



7th International QRM Conference 2nd–3rd April 2009

We would again ask for your support and will be inviting keynote lectures, Chairpersons and themed sessions closer to the date.

For the first time, a new initiative is being offered as a gift from QRM for those QRM delegates who can introduce new colleagues and friends to QRM, to make the event even more successful. Multiple authors from the same Institution will also be offered discounted registration costs.

I would like to thank Karen, our QRM Registrar for her contribution and organization of QRM 2007 and I am delighted to report that she is spearheading QRM 2009. Joe (Prof McNulty), the founder of QRM, continues to be an essential part of QRM offering wise counsel and without whose help QRM would not have been successful. I would also like to thank Dr Les Mitchell, Chairman of Academic Referees and Dr Edward Reed, Social Secretary both for their professionalism and advice before, during and after the conference. Thanks to all QRM authors for their time and detail with reference to both papers and presentations. I look forward to an exciting period leading up to the next QRM Conference in April 2009 and would like to report the following recent developments:

Quality and Reliability
Engineering

International^a published by Wiley have agreed to run a special QRM edition of appropriate papers and this issue will be available for



free access to all QRM conference participants:

<http://www3.interscience.wiley.com/cgi-bin/jhome/3680?CRETRY=1&SRETRY=0>

Six journal papers have been provisionally accepted in Thermology International^b who has agreed to run a special QRM Edition of thermally related papers:

<http://www.uhlen.at/thermology-international/>



Finally could I ask that you continue to promote QRM especially amongst academics, new researchers but to attract more industrial participants. Diolch yn Fawr (Thank You)

Dr Roderick Thomas
Editor QRM Proceedings

Synopsis of QRM papers 2007

Managing change is a major challenge facing the 21st century. There is growing pressure on industrial sectors to manage their assets both physical and human. Becoming a world-class organisation amidst growing global competition and ever-increasing consumer expectations requires long-term vision, dynamic leadership and a committed knowledge-based workforce. This is the only sensible approach to create success where failure is endemic. The pragmatic approach now widely accepted to realise this success, is to formulate action from the well-tried and tested rules embedded in the strategies of Quality Reliability and Maintenance (QRM).

QRM has enjoyed a success history this last decade and is the essential thinking and planning philosophy in all major

organisations. The QRM conferences have developed and flourished since the inaugural meeting in 1995 into well-established biennial meetings at the University of Oxford.

The interdisciplinary nature of QRM is exemplified by the 41 papers published in the proceedings of the 6th International QRM

conference held at St Edmund Hall, University of Oxford March 2007.



Headings

include, Quality Management, Reliability Analysis, Thermography, Condition Monitoring techniques, Research Applications, and Computer Modelling. The material gathered in these proceedings rates some of the best of current practice and research in QRM, which is published in the hardback volume by Coxmoor Ltd, Oxford and has the seal of approval of the co-sponsors The Institution of Electrical Engineering and Technology.

The following notes provide brief summaries of themes and essentials, as space does not permit detailed discussion of specific paper contributions. The 260 pages of refereed proceedings are prolific with cutting edge research findings.

Quality, Reliability and Maintenance Management were dealt with in papers which embraced environmental sustainability, automated managing of a company's data, Reliability applications in spare parts management, novel techniques in the assessment of tennis ball fuzziness and wear, chain optimisation applied in the aerospace industry, a novel approach to Cellular Manufacturing System design, and a total quality management of seaports were among many of the contributions.

Educational, International Standards and Research

This section covered a disparate and widespread set of papers. The acoustics of snoring was shown to be a current medical problem, linking engineering and clinical expertise in order to solve the unravelling of a serious and widespread human condition. Thermography was applied to automotive windscreen defects. Identification of the challenges facing Swansea Bay Development was formulated into a QRM methodology. Patent applications were considered pertaining to the Welsh Development Agency, comparing these with experience in USA. Recent developments in cross-frontier accreditation and the implementation problems of the United Kingdom Accreditation Service were described.

Thermography and Condition Monitoring

A broad range of interests was dealt with in this section, dealing with medical and industrial applications of thermography. A unique Vibration condition monitoring technique was described. Neural networks applied to domestic products suggested a solution to optimising the design of cooking appliances.

Summary

The standard of papers in this volume of QRM2007 is in keeping with the high standards and technical content, which is a tradition of the QRM conferences. They reflect the rapid changes in technology together with the demands for Quality standards from governments and international bodies. The wide spectrum of interests reflects the all embracing and unique message inherent in the QRM philosophy.

Professor G J McNulty

To conclude this first edition we have added just some of the comments from those who added QRM 2007 and hope to see you all at QRM 2009:

The pupils and staff thoroughly enjoyed the experience-it was a wonderful opportunity for them and thank you for the invitation to take part.

*Mrs K Davies,
Headmistress Ysgol Gyfun Gwyr*

All I can say is that the entire QRM 2007 will go from strength to strength.

Professor McNulty

View of Quad from lecture



I do want to thank you most sincerely for an outstanding conference in Oxford, and for making it possible for me to take part. I felt very privileged.

Professor Ring

It is the result of your hard working and I hope that you will always have success by working in the spirit of the team

Dr Jufout

My deepest thanks for a truly wonderful conference experience! The papers were great, Oxford was awesome, but most of all I was most impressed by the people I met....., just a great and warm group of people that I would be proud to call friends.

Mr D'Aries

It is the combination of the presentations, presenters, organization and so many other things that make QRM QRM. You did a brilliant job.

Dr Pickard

^a*Quality and Reliability Engineering International* is a journal devoted to practical engineering aspects of quality and reliability. A refereed bimonthly technical journal, it covers the development and practical application of existing theoretical methods, research and industrial practices. Articles in the journal will be concerned with case studies, tutorial-type reviews and also with applications of new or well-known theory to the solution of actual quality and reliability problems in engineering. Papers describing the use of mathematical and statistical tools to solve real life industrial problems are encouraged, provided that the emphasis is placed on practical applications and demonstrated case studies. The scope of the journal is intended to include components, physics of failure, equipment and systems from the fields of electronic, electrical, mechanical and systems engineering. The areas of communications, aerospace, automotive, railways, shipboard equipment, control engineering and consumer products are all covered by the journal. Quality and reliability of hardware as well as software are covered. Papers on software engineering and its impact on product quality and reliability are encouraged. The journal will also cover the management of quality and reliability in the engineering industry. Special issues on a variety of key topics are published every year and contribute to the enhancement of *Quality and Reliability Engineering International* as a major reference in its field.

^bThermology International (formerly European Journal of Thermology), Published by the Austrian Society of Thermology. Indexed in EMBASE/Excerpta medica, *Editor in Chief Technical/Industrial Thermology*. K. Ammer, Wien, *Section Editor*: B. Jones, Derby. Editorial Board: M.Anbar, Buffalo A.Jung, Warsaw, I.Benkö. Budapest Y.S.Kim, Seoul, R. Berz, Hilders/Rhön K Mabuchi, Tokyo, L.de Thibault de Boesinghe, Gent H.Mayr, Wien, A.DiCarlo, Rom R.C. Purohit, Auburn, J.M. Engel, Bad Liebenwerda O.Rathkolb, Wien, I.Fujimasa, Tokyo E.F.J.Ring, Pontpridd, S.Govindan, Wheeling H.Tauchmannova, Piestany, J.R.Harding, Newport, B.Wiecek, Lodz. Organ of the American Academy of Thermology, Organ of the European Association of Thermology, Organ der Deutschen Gesellschaft für Thermologie, Organ of the Polish Society of Thermology, Organ der Österreichischen Gesellschaft für Thermologie, Organ of the UK Thermography Association (Thermology Group).

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