

BMVA News

The Newsletter of the British Machine Vision Association and
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BMVA News¹ is published every three months. Contributions on any activity related to machine vision or pattern recognition are eagerly sought. These could include reports on technical activities such as conferences, workshops or other meetings. Items of timely or topical interest are also particularly welcome; these might include details of funding initiatives, programmatic reports from ongoing projects and standards activities. Items for the next edition should reach the editor by 31st January 2000.

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Obituary - Dennis Rosen

In recent years, writing grant applications and being assessed for everything under the sun leaves little opportunity for research scientists to take the traditional broad view. It was very different in the

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first two or three decades after 1945 when there was indeed time and opportunity to diversify. Dennis Rosen was just such a post-war scientist, with wide interests which he channelled progressively into issues of the public understanding and education of science.

Born in London in 1928, he was all ready on 1 September 1939 to join Dame Alice Owen's School for Boys in Islington, north London, but instead became one of those little lads with suitcase and gas mask who were evacuated with their schools as hostilities started - in his case to Bedford. As a teenager his interests grew in science and, following a period of National Service in the RAF, he went up to Cambridge in 1948, to read Physics and Mathematics. His research career started with an MA and later a PhD from the Physics department of the Institute of Cancer Research in London, where he spent six years, from 1951 to 1957, as a research student.

Biophysics was an emerging area of research in the 1950s, a time when the effects of radiation on living things were being studied intensively, especially in the hope of improving cancer therapy. It was important to understand the subtle changes in large biological structures following X-irradiation and Rosen began to look at its effects on proteins.

After a year in Uppsala, working at the Gustaf Werner Institute for Nuclear Chemistry on the effects of gamma-rays on human serum albumin, he became Research Associate at the Chester Beatty Research Institute in London. He is remembered by co-workers then as a stimulating and charming colleague who somehow found time to study the effects of electrical and magnetic fields on the growth of fungal hyphae. This became the pattern of his subsequent career. It was typical of him that he should know and want to quote the Gentleman's Magazine

of the 1790s in one of his papers and was prevented from so doing only by the referees.

He then spent a sabbatical year in Leiden (1963-64), working on the electrical properties of macromolecular and conducting solutions, before taking up a lectureship at Chelsea College where (later as Reader) he remained until that college joined with King's in the hectic round of London University mergers in the 1970s and 1980s.

With an extremely broad range of interests, his recurring theme was medical physics and bioengineering both in teaching and research. He was known best for his work in high-speed pattern recognition, and his developments in computer-aided searching of medical photographs were incorporated into the EMI body scanner, which stands as a leading symbol of the applications of science to medical technology.

Rosen set up an excellent two-year MSc course in Biophysics and Bioengineering. His own research became centred mainly on image analysis and particularly on the development of automated pattern recognition systems for the analysis of cervical smears; this remained his ongoing focus. Unfortunately, his work was interrupted by the closure of the Physics departments of both Chelsea and Birkbeck Colleges, so frustrating the development of his research; he began to devote himself to wider issues.

Conscious of the need to bring the public into the world of science and scientists, with his wife Sylvia he published *London Science - the museums, libraries and places of scientific, technological and medical interest* (1994). He worked together with the Committee on the Public Understanding of Science and helped to set up the London/South-East England section of Euroscience, a Europe-wide movement to encourage greater public appreciation of scientific issues.

Concerned about scientific fraud, on which he wrote a number of articles, he was tough on those he regarded as quacks and enjoyed using his rigorous thinking when the opportunity arose to cross swords with them. Always keen to join the sciences with the arts, he would purchase paintings at auction and display them in the college common rooms.

After retiring formally in 1993, he found a congenial niche in the Image Processing Group at University College London, where he continued in his studies in that area (and continued to be awarded research grants). A member of the Highgate Literary and Scientific Institution, he was a prominent figure in arranging lectures, particularly those on scientific themes; he also instituted and organised the

annual Science Week, part of the National Science Week organised by the British Association for the Advancement of Science.

Vivian Moses

Dennis Rosen, biophysicist: born London 30 June 1928; Research Associate, Chester Beatty Research Institute, London 1957-62; Lecturer, Senior Lecturer and Reader, Chelsea College, London University 1964-85; Reader in Biophysics, Birkbeck College, London 1985-91; Honorary Research Fellow in Applied Physics, University College London 1991-99; married 1954 Sylvia Maxwell (two sons, one daughter); died London 7 June 1999.

Reprinted by permission from The Independent, Obituaries, 30 July 1999.

BMVC '99

I recently attended the 10th British Machine Vision Conference (BMVC'99) held at the University of Nottingham between 13-16th of September. BMVC is the major national Conference in the UK in the area of Computer vision and living up to its name, most of the leading British research institutions in this area were present. Moreover, the number of delegates from abroad indicates that BMVC also attracts serious international attention.

The conference was very well organised and local arrangements were excellent. I was particularly pleased with the choice of lecture theatre where presentations were taking place – quite refreshing not to have the person in front of you obstructing half your view as happened in conferences I have attended before. Of course, there was the one odd problem: a fire alarm decided to go off during the very first talk of the conference but it was quickly sorted and from there things went extremely smoothly.

As with all previous BMVC conferences, BMVC'99 was a single track conference. This was particularly welcome since there was no need to choose between talks during parallel sessions. The standard of papers at the conference and the quality of presentations was very high. Dr D. Metaxas and Dr R. Szeliski gave excellent and very inspiring talks on physics based modelling and on stereo matching algorithms for image-based rendering applications respectively. Also, I found the 1 minute presentations given by poster presenters particularly helpful before poster sessions.

Of particular note, was the devotion of one full day to industry where research with potential industrial

applications was presented. Many delegates, myself included found this interesting and very helpful. In parallel with this, the UK Industrial Vision Association held a technical workshop on innovations in illumination for Machine Vision. There were a lot of interesting demonstrations from industrial exhibitors in addition to those from researchers in academia demonstrating their work. It was an excellent chance for delegates from industry and academia to meet and discuss exciting new ideas and potential industrial applications.

Because of the size of the conference and the way it was organised, delegates were able to meet and get to know each other. Meal times provided a great opportunity for making new contacts and holding informal meetings. The conference dinner was a particular highlight and in my opinion a great success.

It was my first time at Nottingham University and my first impression of the campus and the surroundings was a pleasant one. This impression was further improved during my stay at the University halls. The rooms provided, as part of the student bursary prize, were spacious and comfortable.

In summary, as a PhD student I found the event an extremely valuable experience. Not only did it provide an insight into the state of the art research currently being conducted in the UK, but also improved my awareness of the application trends currently being explored in UK industry. I am sure that everyone would like to join me in thanking Dr Tony Pridmore and his team for all their effort in putting together what was a very enjoyable and memorable event.

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BMVC'99 was held at the University of Nottingham on September 13th to 16th. The campus is quite big and beautiful and the conference was valuable for me as an international student.

Thanks to the conference committee who granted me the Student Bursary, I could go to the conference easily. Since I hold an Overseas Research Studentship which doesn't include extra money to support me to attend the conference, this was most helpful. As a result I could register for the conference, present my paper, listen to other author's representation, attend the tutorial and had three nights accommodation and all meals for free.

The tutorials were given by Professor Maria Petrou and Professor Josef Kittler from the CVSSP group

at the University of Surrey and covered "Fusion of Information". Based on their solid research results, the presentations were informative and convincing.

Since the next step to my thesis is to accommodate deformable models into point pattern matching, I was particularly interested in the invited paper "Deformable models for segmentation, 3D shape and motion estimation and recognition" given by Dr Dimitris Metaxas who comes from University of Pennsylvania. From his talk, I learned many aspects of the application of deformable models. I was really impressed by the demo pictures and animations about multiview-based arm tracking and face motion and expression tracking.

This single track conference is suitable for students who want to listen to as many presentations as possible so as to expand their knowledge from the research community. Therefore I attended all the sessions. Apart from my session of multiview techniques, I was especially interested in the papers about modelling human behaviour. This is a quite new topic for me actually, but it has been attracting many researchers, and has a lot of applications such as human-computer interaction, automated visual surveillance and the realistic animation of human motion.

Four days in Nottingham turned out to be an enjoyable and rewarding experience for me, even though I only got half an hour to visit the city centre before I took my train back to York.

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MIUA99

The 3rd Medical Image Understanding and Analysis meeting was held in Oxford on 19th and 20th July this year. The meeting aims to provide a UK forum for the growing body of research in this area, which straddles the traditional fields of the BMVA, the Institute of Physics and Engineering in Medicine (IPEM) and the British Institute of Radiology (BIR). Following the success of the previous meetings in Leeds and Oxford, this meeting attracted many high quality submissions. The multidisciplinary scientific review committee selected 26 oral and 21 poster presentations out of the 59 submissions. The EPSRC provided sponsorship to enable

