Welcome to the first Euromicro Workshop on Medical Informatics. The use of computer systems in all aspects of health care has increased dramatically over the last decade and although there are established forums for reporting advances in the application of technology to medicine there is a need to highlight the important work undertaken in less well documented interdisciplinary ventures. These may not necessarily be the main thrust of researchers’ work, but provide highly novel solutions to well understood problems in health care and suggest new applications of technology to areas which, up to now, have been neglected. The theme of this Workshop is the novel application of information technology to the broad spectrum of health care.

Although the audience for the Workshop is intended to be drawn from a wide community, the Programme Committee for the Workshop was assembled from leading practitioners in the field of Medical Informatics to ensure that the quality and novelty of the papers presented was of the highest standard.

The Workshop comprises a keynote address, regular paper sessions and a number of invited papers.

The Keynote Speaker is Prof. Arie Hasman of the Department of Medical Informatics, Maastricht University, The Netherlands. A leading exponent in the field, Prof. Hasman's activities include involvement in several major European projects, Scientific Programme Co-Chair for MIE2001 and chief editor of the International Journal of Medical Informatics. We are indeed fortunate to have Prof. Hasman launch this new Workshop.

The regular papers are presented in three topical sessions: Communication and Information Systems, Diagnostic Support and Imaging. The first of these reports on the latest developments in the application of technology to communicate with different patient groups through two papers: Developing ICU-Talk - A Computer Based Communication Aid for Patients in Intensive Care and The Role of Gesture in Environmental Control. The final paper in the session, Java Interface to Human Anatomy Knowledge considers access to a medical information system via standard internet browsers using keywords taken from controlled and non-controlled terminology.

The second session is concerned with the widening diagnostic support provided by advanced technological systems. The first two papers, Automated Scoring of the Rey Osterrieth Complex Figure and Computer Analysis of Handwriting Dynamics during Dopaminetic Tests in Parkinson’s Disease both consider automated analysis of so-called paper and pencil tests which provides the potential for highly novel diagnostic support whilst preserving the conventional test environment. The third paper, The Development of a Portable Real-Time Display of Voice Source Characteristics reports a new clinical instrument for analysing speech and the final paper Tumour Recognition in Endoscopic Video Images presents a more conventional analysis of clinical video images for diagnostic support.

The third and final regular paper session considers medical imaging in three very different paradigms. The first paper, Quantitative 3D Modelling of the Left Ventrical from Ultrasound Images considers both global and local measurements to provide a quantitative assessment of the condition of the heart. The second paper, Automated Extraction of Image Segments from Clinically Diagnostic Hand-Drawn Geometric Shapes, demonstrates how analysis of the image segments can provide useful diagnostic information. The final paper of the session, Efficient Image Compression of Medical Images Using the Wavelet Transform and Fuzzy c-means Clustering on Regions of Interest considers a more conventional area of medical imaging.

The invited papers aim to provide an informed review of three important areas of health informatics: the use of statistics in clinical evaluation (The real value of statistics in health informatics); European funding of medical informatics related projects (HOMER-D: A European funded project - from conception to implementation); and what we can expect in the years ahead (Bioinspired systems: the future for medical informatics?).

I’d like to thank all those involved in making this Workshop a reality, particularly the Programme Committee, Prof. Hasman and invited speakers, reviewers, and authors of all the papers submitted.

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Workshop on Medical Informatics

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