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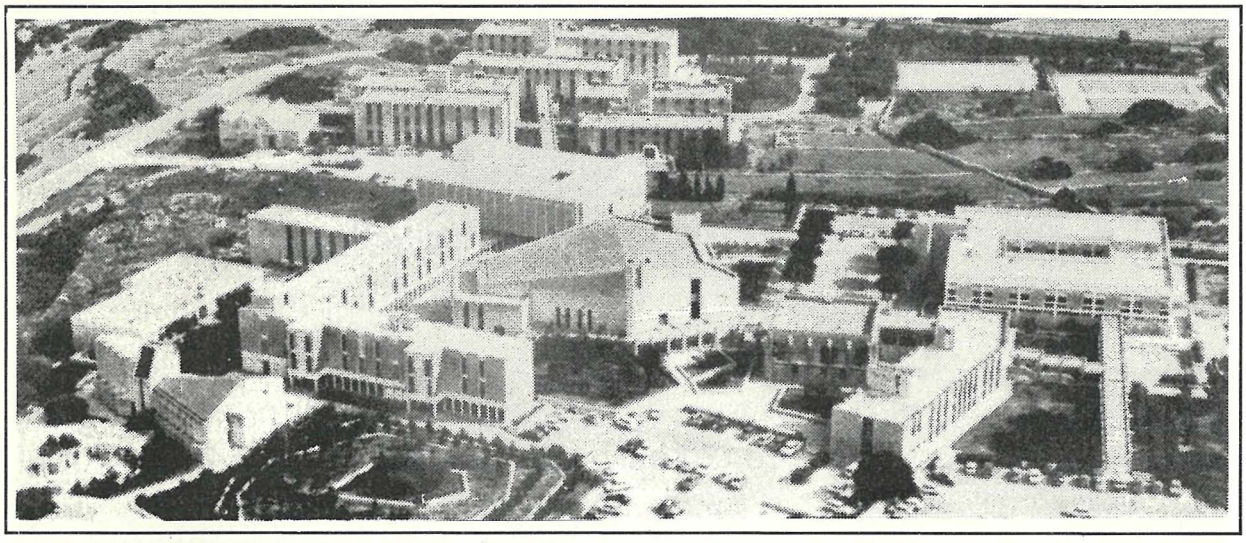

Contents

The dignitaries and deans at the Graduation Ceremony.

A section of the Congregation at the Ceremony.

GRADUATION CEREMONY

On Friday, 11th May, 1990, the Rector, Professor Edwin J. Borg Costanzi conferred two hundred and ten degrees at a Graduation Ceremony held at the University Assembly Hall, Msida.

The ceremony was presided by the Chancellor of the University, Judge Maurice Caruana Curran. Among the distinguished persons present were the Hon. Prime Minister Dr. Edward Fenech Adami, the Hon. Minister of Education and the Interior, Dr. Ugo Mifsud Bonnici and His Grace the Archbishop Mgr. Joseph Mercieca.

Professor Albert Leone Ganado, Head of the Department of Computer Studies, delivered an oration on "Computing: A Challenge for the Future", while Mr. Lucien Stafrace, representative of the graduands, made a brief address.

The following degrees were conferred:

Doctor of Medicine and Surgery – M.D.

Renzo PACE ASCIAK
Patrick SCIBERRAS
Martin VELLA

Master of Education – M.Ed.

Anthony AZZOPARDI
George CASSAR
Joseph GRAVINA

Jesmond GRECH
Josianne SCERRI

**In absentia*

Bachelor of Education (Honours)

Louisella APPS
Phyllis AQUILINA
Anna ATTARD

Mario AZZOPARDI
Mario BAJADA
Suzanne BALZAN

Raymond BARTOLO
Antonia BONNICI
Lawrence BORG

Mark BORG
Robert BORG
Simon BORG

Jane BUHAGIAR
Carmela BUSUTTIL
Stephania CAMILLERI

Alexander CASSAR
Anita CAUCHI
Ruth CUSCHIERI

Carmel DUCA
Anthony FARRUGIA
Michael GRECH

Rosalie GRECH MARGUERAT
Grace GRIMA
Roseann GRIMA

Clarissa JONES
Carmen MAGRI
Maria Stella MALLIA

Mary Anne MANGION
Rita MANGION
Josephine MERCIECA

Michael MERCIECA
Rose Mary MICALLEF
Matthew MONTEBELLO*

Irene MUSCAT
Rosaria POLIDANO
Joanne SALIBA

Bibiana M. SAMMUT
Simon TESTA
Albert VELLA

Ina VELLA
Rita VELLA
Nadia ZAMMIT

Bachelor of Arts (Honours) Accountancy

Ivan AZZOPARDI
Simon BONETT
Rita BUONTEMPO

Caroline BUSUTTIL
Edward CALLEJA
Isabelle CAMENZULI

Alexander CASSAR
Joseph CORDINA
Walter C. CUTAJAR

Etienne DALLI
Michael DEGAETANO
David DEMARCO

Caroline DIMECH
Aldo ELLUL
Maria Anna FARRUGIA

Andrew J. GALEA
Rita GALEA
Edward F. GRECH

David MELILLO
Maria Louisa MERCIECA
Carmel MICALLEF

Joseph MIFSUD
Renaldo MINUTI
Anthony PACE

Wilfred SALIBA
Godfrey SCICLUNA
Brenda SCOTT

Margaret VASSALLO
Maria Anna VELLA
Jacqueline XUEREB

**In absentia*

Bachelor of Arts (Honours) Business Management

Mario BEZZINA
Maria D. BONDIN
Kenrick BRIFFA*

John BUTTIGIEG
John CACHIA FEARNE
James CALLEJA

John CAMILLERI
Noel CAMILLERI
Adriana CHIRCOP

Angele DEBATTISTA
Sergio FALZON
George FARRUGIA

Charles GALEA*
Astrid GRECH
John P. MALLIA

Sarah MICALLEF VALENZIA
Silvio MIFSUD
Joanna MIZZI

Joseph MUSCAT
Anton PACE
Rachel PORTELLI

Josanne SAMMUT
Paul A. SANT
Iman SCHEMBRI

Karen A. SCIBERRAS
Michael VASSALLO
Angele VELLA

Andrew WARRINGTON

Bachelor of Arts (Honours) Public Administration

Francis ALBANI
Leo BONNICI
Mark BORG

Anne Marie BUSUTTIL
Marie L. CALAFATO
Carmen Catherine CAMILLERI

Albert CASSAR
Gabriel CASSAR TORREGIANI
John CREMONA

Rita DARMANIN
Carmen DEBONO
Lucienne ELLUL

Carmelo FORMOSA
Silvio GALEA
Maria A. GRECH

Marion GRECH
Marisa MALLIA
Anne Claire MAMO

Edward MIZZI
Charles POLIDANO
Frances PORTELLI

Peter PORTELLI
Joseph RAPA
Moira SCICLUNA CALLEJA

Eric SERRACINO
Antonietta STELLATO
Andre VASSALLO GRANT

Bachelor of Engineering and Architecture (Honours) – B.E.&A. (Hons)

John ATTARD
Laurence BUTTIGIEG
Jesmond CAMILLERI

Raymond CASSAR
Mario CILIA
Benedict J. FARRUGIA

David FARRUGIA
Vincent MAGRI
George PULLICINO

John SALIBA
Raymond SAMMUT
Michael SCHEMBRI

Lucien STAFRACE
Joseph ZERAFA BOFFA

**In absentia*

Bachelor of Electrical Engineering (Honours) – B.Elec.Eng.(Hons)

Michael BONELLO
Victor BUTTIGIEG*
Stefan CALAMATTA

Colin CAMILLERI
Stephen CAMILLERI
John L. CHIRCOP

Mark EBEJER
Anthony GAUCI
Martin GRECH

Joseph MARKHAM
Ives K. POCOCK
Jesmond QUATTROMANI

Bachelor of Mechanical Engineering (Honours) – B.Mech.Eng.(Hons)

Joseph M. BUTTIGIEG
Anthony CAMILLERI
Albert J. CARUANA

Godwin J. CARUANA
Dario CHIRCOP
Albert CURMI

Julian DIMECH
Matthew JOSLIN
Anthony MANGION

Stephen MIFSUD
Raymond MUSCAT
Philip SCHEMBRI

Jesmond SILVIO
Pierre G. THEUMA

Bachelor of Pharmacy (Honours) – B.Pharm.(Hons)

Anne BOFFA
Dorianne BONNICI
Jacqueline BUGEJA

Dorianne CALLEJA
Margaret CAMILLERI
Mary Ann CATANIA

Anna DEBATTISTA
Clare DEBONO
Denise ELLUL

Joanne FAVA
Anthony FENECH
Sarah GATT

Pierre MICALLEF
Alexandra MIFSUD
Ian MIFSUD

Simone MONTEFORT
Graziella SAMMUT
Josette SCIBERRAS

M'Louise VALENTINO

Bachelor of Science (Technology) – B.Sc.(Tech)

David ABELA
Sharon BALDACCHINO
Aldo CARABOTT*

Angela CHARLES
Miriam CILIA
Mark J. FARRUGIA

Corinne FRENDO
Aaron GATT-FLORIDIA*
Victoria MALLIA-MILANES

Charelle MONACO
Anthony SACCO
Desmond SCERRI

Audrey VELLA
Jonathan VELLA
Christopher XERRI

Claire ZAHRA

In absentia

A group of graduates from the Faculty of Economics, Management and Administration after the Graduation Ceremony

A group of Pharmacy graduates proudly holding their scrolls

GENERAL AGREEMENT ON ACADEMIC CO-OPERATION BETWEEN THE UNIVERSITY OF MALTA AND THE UNIVERSITY OF SUSSEX

For the purpose of strengthening exchanges in cultural, educational and scientific areas and in promoting mutual development of teaching, academic and research activities, the University of Malta and the University of Sussex, entered into an agreement for mutual benefit.

The first acts of co-operation include the institution of the Fulton Scholarship Scheme and the European Studies Scholarship Scheme. Two scholarships tenable at the University of Sussex during the academic year 1990–91 are being made available to Maltese graduates.

Professor E.J. Borg Costanzi signed the agreement on behalf of the University of Malta and Dr. G. Lockwood signed the agreement on behalf of the University of Sussex.

EXTERNAL EXAMINERS FOR THE FACULTY OF MEDICINE AND SURGERY AND THE FACULTY OF DENTAL SURGERY

The following External Examiners visited the Faculties of Medicine and Surgery and Dental Surgery and examined students who sat for their Final M.D. and B.Ch.D. Examinations in June, 1990:

Department of Medicine: Dr. R. Hume, Vice-President, Royal College of Physicians, Glasgow and Professor A. McGregor, Professor of Medicine at King's College Hospital, London.

Department of Surgery: Mr. T. McNair, former President of the Royal College of Surgeons, Edinburgh and Mr. W.J. Owen, Consultant Surgeon at Guy's Hospital, London.

Department of Obstetrics and Gynaecology: Mr. S.W. Studd, Consultant Obstetrician and Gynaecologist at Lister Hospital, London; Professor E.M. Symonds, Professor of Obstetrics and Gynaecology at the University of Nottingham, and Professor D. Vandekerckhove, Professor of Obstetrics and Gynaecology, at University of Ghent.

Department of Pathology: Professor A. Busuttil, Regius Professor of Forensic Medicine at Edinburgh University Medical School and Professor J.G. Azzopardi, Professor of Oncology at Hammersmith Hospital, London.

Department of Pharmacy: Professor P.J. D'Arcy, formerly Head of the School of Pharmacy at Queen's University, Belfast.

Faculty of Dental Surgery: Dr. Bernard G. Smith, Reader at Guy's Hospital Dental School, London.

A REPORT ON THE FIRST MEDICAL SCHOOL CONFERENCE

The First Malta Medical School Conference held in December 1989 was given very favourable publicity through a report by Professor John Richmond, President of the Royal College of Physicians, Edinburgh, which appeared in the April proceedings of the Royal College.

"The Overseas Representatives have made helpful suggestions about fostering overseas loyalties and we shall endeavour to fulfil as many of these as we can."

First Maltese Medical School Conference

"This was held in December when I had the privilege of representing the College and it needs special mention since it marked the resurgence of this fine medical school after some ten years of difficulty. The occasion was organised by Dr. Frederick Fenech, who has returned to Malta as Professor of Medicine and Dean, and his colleagues. A special graduation was held for the class who, at the eleventh hour in 1977, had to take their qualifying examination in the U.K. Twenty-three of the class were able to attend and of these sixteen had already obtained Fellowship or Membership of our Royal Colleges or Faculties. In addition, the new President of Malta, a distinguished ophthalmologist, received an honorary degree. Then followed a two days' scientific meeting exclusively conducted by Maltese doctors; they had returned from all over the world. I have seldom been to a wide-ranging symposium of such sustained excellence. I was left marvelling at so much medical distinction deriving from such a small population. The pleasure of the visit was enhanced by glorious weather only two weeks after the storm which greeted Presidents Bush and Gorbachev".

ELECTION OF FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS, EDINBURGH

Professor Roger Ellul-Micallef, Professor of Clinical Pharmacology at the University, was elected Fellow of the Royal College of Physicians of Edinburgh at the Quarterly Meeting of the College held on 3rd May, 1990. Professor Ellul-Micallef was put up for the Fellowship by Sir John Crofton, a past President of the Royal College and was seconded by Dr. G.J.R. McHardy, a senior consultant in Respiratory Medicine in Edinburgh. Professor Ellul-Micallef had carried out his postgraduate training in the Department of Respiratory Medicine, University of Edinburgh, then headed by Sir John Crofton, between 1969 and 1972.

AN INTERNATIONAL CONFERENCE ON EARLY INTERVENTION IN THE CARE AND EDUCATION OF DISABLED CHILDREN

An International Conference was held jointly by the Department of Social Studies of the University of Malta and the National Commission for the Handicapped in Malta, between the 25th and 29th April, 1990. This conference was incorporated in the programme of the International Academy of Paediatric Transdisciplinary Education (IAPTE).

The Conference was aimed at promoting closer professional and educational intercommunication between paediatrics and all other child-caring professions. The conference was open to all those concerned with disabled children, parents, teachers, play-workers, nurses, therapists, social workers, doctors and policy-makers. Foreign and local expert speakers in the various fields were invited to present papers.

Keynote papers were given by a number of speakers of international repute including Professor Emeritus Alan E.H. Emery (Edinburgh). He read a paper on "The Principles and Practice of Genetic Counselling". Professor A. Russell, who has worked worldwide on projects involving Child Development Centres, spoke on "An Ideal for the Care of the Developmentally Disabled Child". Ms. Edna Wallace, Senior Social Worker and Lecturer from London presented a paper on "Early Intervention using Social Work Methods". Professor Moon K. Chang, Professor of Special Education in America, dealt with "Teaching Self-Help Skills to Children with Special Needs: An Interdisciplinary Approach". Professor Soresi and Professor Zucco from Padova, Psychologists, spoke about "A Programme for the Early Social Integration of Handicapped Children".

The Conference was divided into four parts. Day 1 dealt with "Prevention". Day 2 focused on "Early Intervention". Day 3 involved teachers, therapists and self-help groups. Day 4 was in turn devoted to reports from Workshops.

The holding of this conference provided a rare opportunity for interdisciplinary sharing and learning for Maltese persons working in the field of disability. Local participation was high and the subjects being tackled aroused great interest. The Acts of the Conference will be published by the Department of Social Studies.

NURSING CONFERENCE ON STRATEGIES FOR NURSING AND MIDWIFERY IN THE 1990'S

The first Nursing and Midwifery Conference in Malta was held at the Medical School in the period Wednesday, 30th May to Friday, 1st June, 1990. Professor Baroness McFarlane of Llandaff, Emeritus Professor of Nursing, University of Manchester, and Professor Kate Morle from Liverpool University spoke about nursing theory whilst Sister Mary Borg and Miss Barbara P. Burkey addressed issues concerning nursing in Malta. On Friday, the second year B.Sc. Nursing students gave a highly professional discourse on the topic of surgical nursing raising many issues for debate.

More than 250 participants including practising nurses, nurse educationalists and nurse managers attended the conference, which proved very interesting and stimulating.

SEMINAR ON RENEWABLE SOURCES OF ENERGY

A seminar on renewable sources of energy was held at the Institute of Energy Technology at the University in the period 18th to 21st April, 1990, under the auspices of the Community of Mediterranean Universities as part of the latter's continuing effort to promote the advancement of Science and Technology through cooperation amongst the 108 member universities.

Fifteen experts from different parts of the Mediterranean considered the practical applications of solar energy relating to the region. Discussion ensued from papers submitted by the participants on matters relating to Solar Radiation, Flat Plate Convertors, Pressure Solar Architecture and Photovoltaic Energy. The last day was devoted to feasibility study of the alternative sources of energy that can contribute to the development of Mediterranean countries.

At the end of the Seminar, the following conclusions were drawn:

(i) to study the availability and the feasibility of utilisation of renewable energy sources in the region and to provide information which would be required in sizing energy conversion at minimum cost and optimum performance;
(ii) to provide facilities for training personnel at various levels in these disciplines;
(iii) to assist in promoting research and institute post-graduate studies, especially in Material Science for energy;
(iv) advanced research programmes may lead to commercial lines of production of energy convertors to serve the welfare of the Mediterranean countries.

ACADEMIC YEAR 1990/91

First Semester:
Monday 1st October 1990 – Friday 1st February 1991 (18 weeks)
Christmas Recess: Saturday 22nd December 1990 – Sunday 6th January 1991
(provides 15 weeks for teaching and 1 week for examinations and tests)

Second Semester:
Monday 4th February 1991 – Friday 14th June 1991 (19 weeks)
Easter Recess: Saturday 23rd March 1991 – Sunday 7th April 1991
(provides 15 weeks for teaching and 2 weeks for examinations and tests)

Summer Recess/Work Period:
Saturday 15th June 1991 – Monday 30th September 1991 (15 weeks)
(includes period for supplementary/special sessions of examinations)

(Semester dates do not apply to the M.D., B.Ch.D., B.Pharm. (Hons.), B.Sc. (Nursing Studies), and Diploma in Nursing/Midwifery Courses)

GENERAL

Visit by Professor Friend

In May 1990, the Department of Architecture and Urban Design hosted Professor John Friend, who is one of the main originators of the Strategic Choice Approach to planning and decision making. He delivered a series of day lectures to the students of the Urban Planning and Design Stream of the Department. Students from the Department of Management Studies were also invited to participate. The approach has been developed over the past twenty years in order to aid planners, managers and decision makers from both the public and private sectors deal with complex issues efficiently and comprehensively.

Professor Friend also delivered a week-long series of evening lectures and practical sessions on Strategic Choice to staff members of the Planning Services Division of the Ministry for the Development of the Infrastructure and to managers from the banking and manufacturing sectors. This course was organised by the Malta University Services Limited in collaboration with the Department of Architecture and Urban Design. On the final day of his visit Professor Friend made a presentation of his software to members of the Institute for Data Processing Management at the Malta Chamber of Commerce.

Visiting Lecturer in Architectural History and Theory

Professor Paulo Varela Gomes, a leading authority on Baroque Art and Architecture, visited the University between the 6th and 12th May, 1990, at the invitation of the Department of Architecture and Urban Design to give a course of lectures to architectural and art students.

Moreover, Professor Gomes gave a public lecture on "Malta and Portugal during the Baroque Period: Architectural Cross-Currents" on Wednesday, 9th May, 1990 at the First Floor Studio of the Faculty of Architecture and Civil Engineering.

Visit by Professor Tortell

Following an invitation by the Department of Architecture and Urban Design of the University in collaboration with the Marine Science Network of the Malta Council for Science and Technology, Dr. Philip Tortell delivered a lecture on "Environmental Impact Assessment – Methodology for determining acceptable environmental impact" to students, academics and practitioners from the fields of architecture, Civil Engineering, planning, public policy, environmental science, biology and geography.

On Tuesday, 15th May, 1990, Dr. Tortell delivered a public lecture on "Environmental Policy in New Zealand – The Experience of the Past Sixteen Years" at the Aula Magna of the Old University Building.

Seminar

On Tuesday, 29th May, 1990, a half-day seminar on "Community Care Provision – The Challenge of the Future" was given by Dr. Audrey Leathard, Reader in Interprofessional Health and Welfare Studies, South Bank Polytechnic, London at the Arts Auditorium.

Lectures

On Monday, 9th April, 1990, Dr. Ewan W. Anderson, Senior Lecturer in Geography at the University of Durham and NATO Strategic Analyst delivered a public lecture on "The Changing Geopolitics of the Mediterranean" at the Science Lecture Theatre.

On Friday, 4th May, 1990, as part of the activities of the Philosophy Society, Professor Charles Tarlton, Fulbright Professor at the University of Malta, read a paper on "DISSOLUTION" (discontinuity, dissonance, disassociation, dislocation, disjunction, *discounting*) and DISILLUSION (disfigured, discourteous, dispersion, dissimulation, discomfort, *dismounting*)".

On Friday, 8th June, 1990, Mr. Mark Micallef, Post-Graduate Research Pharmacist at the University of Hokkaida, Japan gave a lecture on "Present Trends in Immunotherapy" at the Medical School.

On Thursday, 14th June, 1990, the Post-Graduate Medical Committee and the Dental Association of Malta organized a lecture on "The Doctor and the Court – Aspects of Forensic Odontology and Mass Disasters". The speaker was Professor A. Busuttil, Regius Professor of Forensic Medicine at the University of Edinburgh.

On Thursday, 21st June, 1990, Professor P.H. Hirst, Emeritus Professor of Education at the University of Cambridge, delivered a public lecture on "Teaching and Professionalism" at the Aula Magna of the Old University, Valletta.

Puputan

On Sunday, 15th April, 1990, the Spanish artist Toni Cots performed "Puputan", a spectacular solo performance-demonstration about Balinese theatre and dance and its adaptation to the European actor's techniques at the University Assembly Hall.

Mr. Cots was in Malta for a week together with Isabel Soto from Paris and gave seminar-workshops to Theatre Studies students at the University. Their visit was made possible by the Mediterranean Institute of the University, the Spanish Embassy, Mr. and Mrs. P. Stubbs and "Teatru tal-Bniedem".

UNIVERSITY OF MALTA GAZETTE

SUPPLEMENT No. 4 Volume 22 No. 4 JUNE 1990

At the Graduation Ceremony, Professor Albert Leone Ganado delivered the following oration:

It is traditional for the incumbent of newly established department to be given the unenviable task of addressing a restless graduation audience accompanied to a crescendo of cacophonous compositions. However, I do beg the audience to leave ample periods of silence between each movement for me to go through the speech.

The Department of Computer Studies within the Faculty of Science came formally in existence in February of this year, after a rather long gestation period. Rather too late one would immediately say, facing an immediate challenge to catch up and emulate similar departments abroad who have had quite a headstart.

Computing is perhaps one of the fastest evolving fields of human endeavour acquiring all the time a wider corpus of intellectual substance and having placed upon it an ever increasing demand to produce the right kind of professional computer specialist to cover information technology needs. An ever increasing number of computer practitioners is required in Malta to provide this human resource commodity so essential to a developing country. Personnel with such expertise are today recognised as essential members of any team entrusted with carrying out the structural changes in the industrial, communication, financial and administrative fields which the technological revolution is bringing about.

Before taking the traditional opportunity of using this platform for pleading computer studies as a special case which merits special consideration in the allocation of University resources let me expound a bit on the challenges ahead and the framework within which they must be met. Perhaps the best starting point is to try and define the role of computing and computer science within a modern University.

In a recent study commissioned by ACM the leading American Computing body, computing is defined as the systematic study of the problem-solving processes that describe and transform information. Historically computing has its roots in the quest for automatic means of carrying out numerical calculations, as evidenced by the centuries old abacus, and mechanical adding machines tested by Pascal and Leibnitz as far back as the sixteenth century. In 1842 Ada Lovelace, Lord Byron's daughter, to whom the well-known programming language ADA is dedicated, had recognised that the analytical engine as proposed by Charles Baggage was capable of processing any information which could be reduced to a set of symbols. The seminal work by Alan Turing and Von Neumann in the thirties and forties on the foundations of an automated machine forms the basis of modern theory.

Applied Mathematics and engineering have for long been inextricably linked by their needs for fast and accurate calculations. The progression from the abacus to the slide-rule to the mechanical adding machines of which the swedish Brunsviga is a dear remembrance of my student days eased the calculations task whilst producing examples of precision engineering machines. The first computers over the period 1950 – 1970 were used mainly for such complex calculations. As computers became universally available in the 80's, and faster personal PC's and powerful computer workstations found their way into every academic department and office of those who in any way manipulate and handle information and symbolic notation, the application areas of the fields of computing widened and engaged the interest of the whole spectrum of academic and applied disciplines.

What was restricted to a chosen few academics in select institutions became accessible to a larger group of willing participants. A theoretical underpinning solidly rooted in the realms of mathematics, logic and the cognitive sciences started to move out of the specialised research journals and be recognised as the basis of any serious computing programme.

Because programming languages provide the means by which abstractions and their related models can be realised as working programs on a computer it is wrongly assumed by many that computing

is about learning and becoming competent in the use of a programming language. Nothing is further from our objectives for the proper development of the subject. The challenges facing us in the nineties are completely different and one must not allow those who are basically programmers, however competent, to assume a role of computer experts even in the more mundane and commercial data processing environments. Computing whatever the field of application is about problem-solving, about understanding the theories and heuristics which support the application, of creating the right logical model as underpinned by the theory and finally of designing and realising the model as a physical practical working system. The statement attributed to Pasteur that before one can create one must know is particularly applicable to computing.

One aspect about computing which I feel is important to stress is the intra-disciplinary nature of the subject and the interest which it manages to generate wherever mentioned. Having spent a number of years in mathematics the conversation stopper *par excellence* and about which people almost taking pride in declaring how bad they are or were in, it is quite encouraging to feel the general interest which computers evoke and how the subject is an acceptable topic, whether at academic coffee time or on social occasions. Of course interest is not knowledge and a little understanding especially in circles where the majority are uninitiated creates the pseudo-experts which abound in most organisations where installation of computers became a necessity.

However, wherever there is interest and willingness to converse there is the fertile ground to develop the necessary mechanisms to cooperate, be it in an interdisciplinary research project or in transforming results in one field as a paridigm to other disciplines. Areas like graphics, linguistics, A.I. problems, modelling, man-machine interaction, problem definition, information storage and retrieval draw on basic principles and conceptual models which transcend any subject material. As Oakeshott states in his collection of essays on education, in a true University learning is a conversation where each study is a voice and where integration springs from the quality of the voices which converse. Computing can serve as a focal point, the salon where part of this conversation can take place.

Coming closer to my present responsibility one has to ask what should a small computer studies department in the University of Malta try to achieve and what resources does it need to achieve its objectives. It certainly needs bright students and fortunately by and large there is no shortage of them. Indeed the setting up by the Department of Education of a sixth form where all students choose computer studies as one of their main subjects is bound to guarantee a steady stream of highly motivated students. In the Faculty of Science students read for a two subject degree and computer studies is normally taken in combination with mathematics or physics. These are possibly two of the best combinations since there is no doubt that mathematics training provides one of the best frameworks for understanding fundamental theory, and physics does the same when it come to abstraction of physical models. But of course computing is also about design and implementation of projects and in the next few years given the right resources one would like to see other options available offering computer studies as a combination subject with business studies and certain arts subjects.

There is no doubt that such courses will be demanded by industry and government as part of their human resource computerisation requirements. It is important I feel that top computing jobs in the country's main organisations are filled up by University graduates whether trained directly in an undergraduate computing course or from graduates in other fields taking conversion courses in Information Technology. A lack of know how and qualifications at the right level exists at a national level, and with major computerisation programs starting to be announced, major mistakes are bound to occur unless plans for training are quickly drawn up. Even in this area my department will have a role to play although it must not become it's major preoccupation.

I feel that offering computing with philosophy and logic must be the other end of our spectrum of options and whilst one cannot anticipate many students choosing such an option a few such students could encourage and strengthen the development of the formal method component in the subject.

One cannot speak of offering such opportunities unless one is certain that fully equipped up to date computer laboratories are available. Supervised Laboratory sessions form an essential component of

any computng course. They serve to give the necessary hands-on experience, to demonstrate the correct methods and use of computing tools and to ensure that students end up building working systems. Great importance is attached to this for employers initially are going quite likely to judge the quality of our students and offer them career opportunities on their ability to put theory into practice. To this end software design and engineering courses and an extended project form an important component of the course. It is hoped that by the end of this academic year such laboratories will be available in the extension to the Maths & Physics building currently being erected.

However, well-thought, our plans can only be put into practice if lecturers and computing supporting staff of the right calibre is found. In this aspect the situation is critical. At present there are only two full-time members of staff and one programmer and none is a recently trained pure breed computer scientist. We are heavily dependent on part-timers whose first loyalty is to their full-time job. The heavy lecturing commitment means that we cannot even find the time to visit similar computer departments abroad to update ourselves with the latest developments. This in a field which is all the time changing especially when it comes to the design and implementation of systems. Computing is a field where demand for qualified personnel exceeds supply by a large margin and where our best graduates command starting salaries well above what we ourselves earn. Recent calls for academic staff resulted in hardly any response from persons with the right qualifications.

As a first step I feel we have to identify our best graduands and offer them scholarships to further their academic studies abroad, before they are lured away by companies offering highly attractive employment terms. Such action will not ease the immediate problems but will at least ensure that the problem does not become chronic. In the short term the only solution is to recruit from abroad. I feel that a two-pronged drive is needed in this direction. The recent changes in Eastern Europe has made it much easier to recruit staff from these countries. Whilst they may lack exposure to the latest technological developments in the subject they tend to have a strong background in the theoretical and abstraction aspects of the field, and our experience has been that they are very dedicated to their work. For acquainting ourselves with the latest techniques and design methodologies there is no other option but to bring over from the institutions of technologically advanced countries for short assignments the best expertise in clearly defined areas and of course be willing to pay the going market rates. Proper planning of courses can ensure that students will have the necessary background to take maximum advantage of such visits, and that transfer of knowhow does occur.

The challenge facing the department is only part of a similar but greater challenge facing the whole nation, for their is no doubt that for the country to hold up its head in the current technological revolution of which computer technology and information technology form the kernel and driving force a well defined national strategy for the next decade must be prepared. Let us hope the University's computer studies department will play a small but active role as part of what one trusts and hopes will be a well-knit cohesive national undertaking.