Digital Media and Computing at the University of Bradford
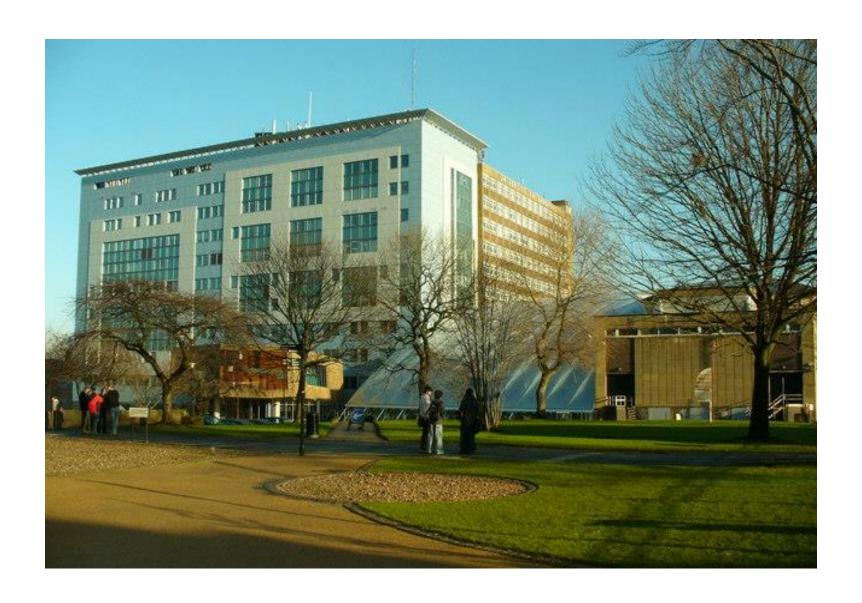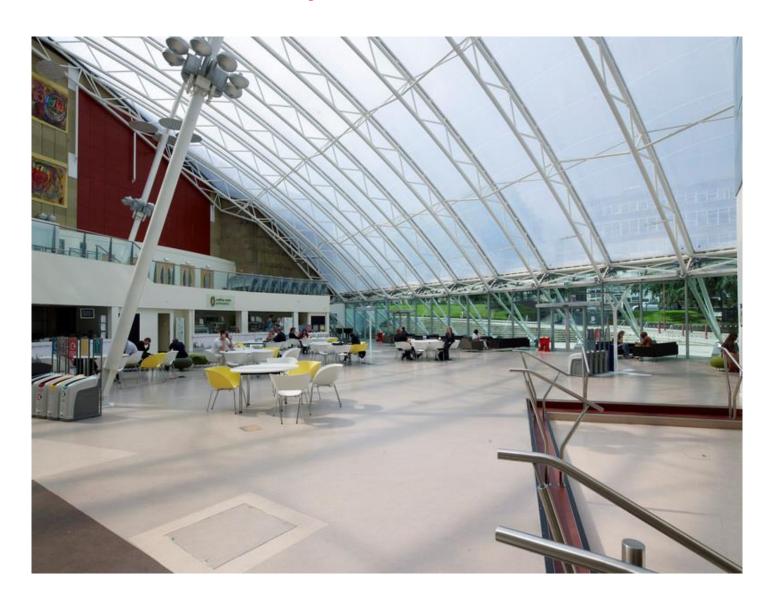
Rae Earnshaw

Overview

- Founding of the University of Bradford
- Founding of the Computer Centre
- Timeline of computing at Bradford
- EIMC Department
- School of Informatics
- Faculty of Engineering and Informatics
- References

Background of Prof Earnshaw

- University of Leeds – Russell Group
- Illinois Institute of Technology – private University, Chicago. IITRI
- Northwestern Polytechnical University, Xian, China
- George Washington University – private University – downtown DC – close by White House and NSF – Foggy Bottom – Dept of Electrical Eng and Computer Science
- 4 books with Professor Rogers at US Naval Academy, Annapolis, USA
- University of Bradford, Professor of Electronic Imaging
- http://www.bradford.ac.uk/ei/electrical-engineering-and-computer-science/staff-profiles/profile/?u=raearnsh
- Glyndwr University, Professor of Creative Industries

University of Bradford - 1

University of Bradford - 2

University of Bradford - 3

University of Bradford - 4

University of Bradford, Royal Charter 1966

- The **University of Bradford** is a public, plate glass university located in the city of Bradford, West Yorkshire, England. The university received its Royal Charter in 1966, making it the 40th university to be created in Britain, but its origins date back to the early 19th century. There are two campuses: the main campus located on Richmond Road and the School of Management, at Emm Lane

- The student population includes 10,525 undergraduate and 3,050 postgraduate students.[3] Mature students make up around a third of the undergraduate community. 22% of students are foreign, and come from over 110 different countries. There were 14,406 applications to the university through UCAS in 2010, of which 3,421 were accepted.[4]

- http://en.wikipedia.org/wiki/University_of_Bradford

Early History

- The university's origins date back to the Mechanics Institute, founded in 1832, formed in response to the need in the city for workers with cutting-edge skills relevant to the workplace. In 1882, the institute became the Bradford Technical College

- In 1957, the Bradford Institute of Technology, was formed as a College of Advanced Technology to take on the running of higher education courses. Construction of the Richmond Building, the largest building on campus, began in 1963. The Horton Building and Chesham building were subsequently added, on the opposite side of Richmond Road

- The Charter of Incorporation was granted in 1966, to create the University of Bradford; the then Prime Minister Harold Wilson became the university's first chancellor

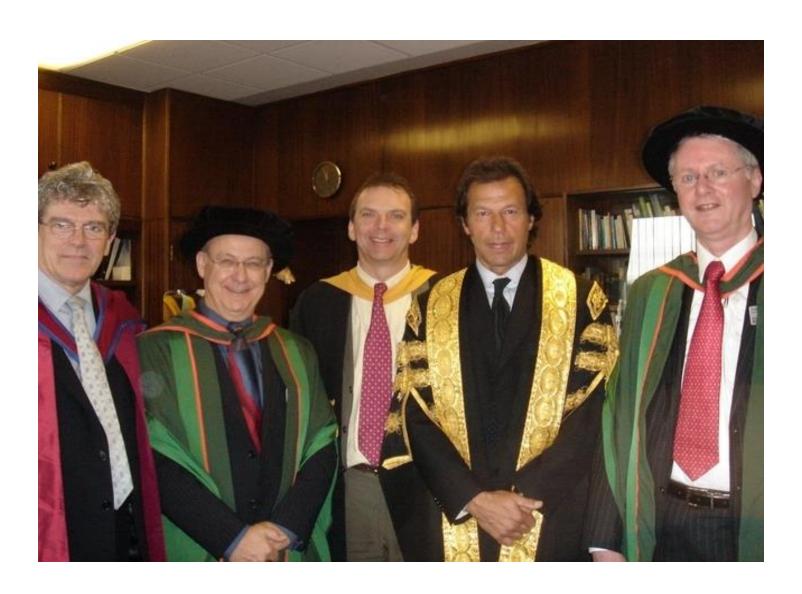- http://en.wikipedia.org/wiki/University_of_Bradford

Vice-Chancellor, Chancellor, Pro-Vice Chancellor and Deputy Vice-Chancellor : E.G. Edwards, Harold Wilson, Charles Morris and R.A. McKinlay. Late 1960s

Vice-Chancellors

- Dr E. G. Edwards (1966-1978)
- Prof John West (1979-1989)
- Prof David Johns CBE (1989-1998)
- Prof Colin Bell (1998-2001)
- Prof Chris Taylor (2001-2007)
- Prof Mark Cleary (2007-2013)
- Prof Brian Cantor CBE (2013-)
- http://www.bradford.ac.uk/library/special-collections/collections/university-of-bradford-archive/
- https://sites.google.com/site/davidjjohns1/

Prof Jeff Lucas, DVC, Prof Phil Coates, PVC, Prof Geoff Layer, PVC, Imran Khan, Chancellor, Prof Rae Earnshaw, PVC, 2005

Video on the University of Bradford ~1968

- http://www.yorkshirefilmarchive.com/film/potential-graduate
- Source: yorkshirefilmarchive.com
- Made by the University of Bradford, this promotional film highlights the benefits of being a student studying at their university. The film features the University's facilities and various academic programmes as well as provides a good example of 1970s student life in Britain. Title: 'University of Bradford' 'audio visual unit' 'Potential Graduate' The film opens with a statue of W. E. Foster. The commentary stresses that the University is designed to meet the technological needs of the age

University of Bradford	Coat of arms
Former names	Bradford Institute of Technology
Motto	Give invention light
	(from Shakespeare's Sonnet 38)
Established	1966 - gained University Status by Royal
Charter	
	1957 - Bradford Institute of Technology
	1882 - Bradford Technical College
	1832 - Mechanics Institute
Type	Public
Endowment	£ 55.2 m (2013)[1]
Chancellor	Imran Khan[2]
Vice-Chancellor	Brian Cantor
Academic staff	615[3]
Administrative staff	1205[3]
Students	13,570[3]
Undergraduates	10,525[3]
Postgraduates	3,050[3]

Campus Map

- http://www.bradford.ac.uk/contact-and-find-us/maps/

Time Line of Computing at Bradford - 1

- 1959 Diploma in Applicable Mathematics – first two external examiners – Prof Charles Coulson FRS (Oxford), http://en.wikipedia.org/wiki/Charles_Coulson and Prof Sir Rudolph Peierls (Oxford) http://en.wikipedia.org/wiki/Rudolph_Peierls

- Gilbert Freeman of the Royal Aircraft Establishment joined the Dept of Mathematics as Head. He had used analogue and numerical methods to solve problems which were intractable with normal mathematics

- Despite his enthusiasm, Gilbert Freeman found it difficult to persuade fellow Heads of Dept in Bradford that computers were likely to be of any use. In 1958, only three of the other Heads in the University could envisage any use for computers, while only two of a large number of local industrial companies which were approached were positive in their response

- 1959 – evening lectures and one-day symposia on electronic computers organised by the Head of the Maths Dept, Prof Gilbert Freeman. But still no enthusiasm within the University or industry

- 1959 – purchase of EMIAC analogue computer

- 1960 – donation of Zebra Digital Computer by STC – Gilbert Freeman turned to school children to come and look at this new marvel

- 1961 – newer version of the STC was purchased and used for computer programming in the Diploma in Applicable Mathematics

Time Line of Computing at Bradford - 2

- 1962 – Computing Laboratory formed, and the first Director, James Ord-Smith, was appointed. Many short courses organised by Freeman and Ord-Smith for staff and others. Industry were now also getting interested in computers!
- 1965 – Computing Laboratory separates from the Dept of Mathematics
- 1966 – Institution gains University status and Royal Charter
- 1966 – PG School of Studies in Computing – offering an MSc and a PG Diploma in Computer Science – first course in the session 1966/67. The first MSc was awarded in 1967
- 1969 – ICL 1909 installed in converted accommodation
- 1970 - Three-shift system operating on the ICL1909
- 1971 – total teaching risen to 3,000 hours and total staff to 43
- 1971 – Established Undergraduate School of Studies in Computer Science – demand for places far exceeded the capacity and staff resources available
- 1971 – Ord-Smith appointed to newly created Chair in Computer Science

Time Line of Computing at Bradford - 3

- ICL computer upgraded to 1904S. The University invested £100K in a campus network, with 25 interactive terminals, with access to 300 MB of storage
- 1975 – first BTech in Computer Science (4 year course) was awarded in 1975.
- 1975- New purpose built Computer Centre funded by the UGC (after many arguments) was opened by J. B. Priestley, whose name the Library bears. It became a unique occasion because Priestley declared his lack of interest in computers
- 1981 – Staff totalled 70.
- 1981- Grant of £600K from the Computer Board for a new CDC 170/720 computer.
- 1983 – the academic Schools of UG and PG Computer Science separate from the Computer Centre and Dr Stephenson was appointed as Professor to head the academic areas. Professor Ord-Smith continued as Director of the Computer Centre. Dr Stan Houghton was promoted from Computer Manager to Deputy Director
- 1986 – Further upgrades to the CDC computer (to a Cyber 180-830 and Cyber 930), with some 800 terminals, 12 GB of storage, and rings of Apollo and SUN workstations.
- 1988 – UGC Grant of £710K to pilot the introduction of total computerisation, with a computer connection to every member of staff and student.
- 1989 –1991 - £1M for replacement of the central computing facilities, based on a distributed and extensive network of Sun servers, advanced graphical Sun workstations and PC workstations.

Computer Centre

Electronic Imaging and Media Communications - 1

- The Department of Computing was one of the first in the UK to run an MSc course in Computing back in 1967. Undergraduate courses began in 1970

- The EIMC department was founded in 1991 and developed its courses in conjunction with the School of Art, Design & Textiles at Bradford and Ilkley Community College (now known as Bradford College) and the National Museum of Photography, Film and Television (now the National Media Museum). It was one of the first departments to offer BSc courses in media technology, going on to introduce some of the first animation and computer games degrees, and more recently expanding to offer a new range of similar BA courses.[27] Today, SCIM no longer works in association with the college, but has strengthened its relationship with the nearby National Media Museum. In association with the Department of Computing, it obtained a research grade 4 at RAE 2001

- http://en.wikipedia.org/wiki/University_of_Bradford

Electronic Imaging and Media Communications - 2

- A non-linear video editing / training suite is named in honour of the Shipley born film director Tony Richardson, and was opened by his daughter, the film actress Natasha Richardson in 1996

- In 2007 the School launched a partnership with East Coast Media at the Grimsby Institute and the National Media Museum to bid for Skillset Media Academy status, which was granted in 2008 Accreditation mainly covers courses in the Bradford Media School.

- A core part of the school is the Innovations Unit, which offers the expertise of specialists within SCIM to commercial and social enterprises. This collaboration is part of a Government initiative called Knowledge Transfer, which also includes partnerships with national and international companies. The IIU is also home to "Simula", which using knowledge transfer and resources for commercial projects including the school's motion capture suite for video games including Driver Parallel Lines, World Snooker Championships and GTR

- http://en.wikipedia.org/wiki/University_of_Bradford

EIMC PRIZES

	FOUNDER'S	MARY WILSON	IAN ROSENBLOOM	REAL LIFE PRODUCTIO
1996	G. Baker			
1997	W.M. Garwood	...uglas	H. Taylor	
1998	B.J. Summers	...scales	...Bolton	T.J. Dalby I.D. Vallins
1999	C.M. Kent	...Hawkes	...W Harmer	J.J. Tee
2000	M.G. ...	...ner	R.M. Linton-Forrest	S. Alexandre
2001	D...		A. Hogben	R.M. Lloyd
2002			S.D. Jones	K. Davies
2003			Adam J.K. Syrup	Sarah Senior

Academic Developments in Computing and Engineering since 1991

- EIMC Dept, 1991-2010
- School of Electronics and Digital Media, 1997-1999
- School of Informatics, 1999-2013
  - Dept of Computing
  - EIMC Dept
  - Cybernetics Dept
- Faculty of Engineering and Informatics, 2013-
  - School of Electrical Engineering and Computer Science
  - School of Engineering
  - School of Media, Design and Technology

References - 1

- *The University of Bradford: origins and development* and *The University of Bradford: the early years*. Both were written by Robert McKinlay, Vice-Principal of the Bradford Institute of Technology and later Pro-Vice Chancellor of the University. The books are incredibly useful and authoritative sources, as McKinlay combined huge experience and knowledge and scrupulous archival research

- *Origins* covers the period up to 1966, when the University received its Charter; *Early years* takes us through the 1970s, with an epilogue on the 1980s and early 1990s

- http://100objectsbradford.wordpress.com/2012/03/14/49-a-university-for-bradford-robert-mckinlays-histories-of-the-university/

- http://100objectsbradford.wordpress.com/2012/08/29/65-universities-science-and-the-just-society-writings-of-ted-edwards/

References - 2

- Computer Graphics Pioneers visit to the University of Bradford, 1995

- Dr Larry Rosenblum, Naval Research Lab, USA, Prof Brian Wyvill, University of Calgary, Prof Jack Bresenham, Winthrop University, USA (picture on next slide)

- http://www.agocg.ac.uk/gv/issue45/computer.htm

Dr Larry Rosenblum, Prof Brian Wyvill, Prof Jack Bresenham