

THE DESIGN OF DISTRIBUTED PROCESSING SYSTEMS

This course is sponsored by :

CCE - CREST Commission of the European Community

IRIA Institut de Recherche d'Informatique et d'Automatique

NICE Faculté des Sciences

Chairman : G. LE LANN, IRIA

Lecturers : E. HOLLER, University of Karlsruhe (RFA)

E. JENSEN, Honeywell Systems and Research Center, Minneapolis (USA)

D. Mac QUEEN, University of Edinburgh (GB)

E. MANNING, University of Waterloo (Canada)

G. MAZARE, CII-Honeywell Bull, Grenoble (France)

R. PEEBLES, Digital Corp., Maynard (USA)

C. WHITBY-STREVENS, University of Warwick, Coventry (GB)

IRIA - Service Formation, B.P. 105

78150 LE CHESNAY (France)

tel : 954 90 20 poste 675

telex : 697 033 F

SUMMARY

- Distributed data processing. Case studies.	
<i>E.G. MANNING and R.W. PEEBLES</i>	1
- A homogeneous network for data-sharing communications.	
<i>E.G. MANNING and R.W. PEEBLES</i>	37
- Software management of Cm^* , a distributed multiprocessor.	
<i>A.K. JONES, R.J. CHANSLER, I. DURHAM, P. FEILER and K. SCHWANS</i>	51
- Issues in distributed processing, an overview of two workshops.	
<i>R.H. ECKHOUSE, J.A. STANKOVIC and A. VAN DAM</i>	59
- Distributed systems - Towards a formal approach.	
<i>G. LE LANN</i>	65
- A majority consensus approach to concurrency control for multiple copy data bases. <i>R.H. THOMAS</i>	71
- A principle for resilient sharing of distributed resources.	
<i>P.A. ALSBERG and J. D. DAY</i>	81
- Synchronization with eventcounts and sequencers.	
<i>D.P. REED and R.K. KANODLA</i>	101
- Algorithms for distributed data-sharing systems which use tickets.	
<i>G. LE LANN</i>	109
- Distributed data processing. Design of distributed systems.	
<i>E.G. MANNING and R.W. PEEBLES</i>	123
- A homogeneous computer network : analysis and simulation.	
<i>J. LABETOULLE, E.G. MANNING and R.W. PEEBLES</i>	159
- Implementation of decentralized coordination mechanisms in distributed mini-microcomputer systems.	
<i>E. HOLLER and O. DROBNIK</i>	175
- A comparison of different approaches to distributed databases systems. <i>C. KEIL and E. HOLLER</i>	197
- DISCO : a distributed file management system for heterogeneous computer networks.	
<i>H. BREITWIESSER, U. KERSTEN and O. DROBNIK</i>	217
- Reference list. <i>E. HOLLER</i>	233

- Computer interconnection structures : taxonomy, characteristics and examples. G.A. ANDERSON and E.D. JENSEN	237
- A review of systematic methods in distributed processor interconnection. E.D. JENSEN, K.J. THURBER and G.M. SCHNEIDER	255
- A systematic approach to the design of digital bussing structures. K. THURBER, E. JENSEN, L. JACK, L. KINNEY, P. PATTON and L. ANDERSON	263
- The Honeywell experimental distributed processor, an overview. E.D. JENSEN	285
- The Honeywell experimental distributed processor, an overview of its objectives, philosophy and architectural facilities. E.D. JENSEN	297
- Coroutines and networks of parallel processes. G. KAHN and D. B. MacQUEEN	333
- Laws for communicating parallel processes: C. HEWITT and H. BAKER	339
- Synthesis of communicating behaviour. R. MILNER	345
- Bibliography for models of distributed computing. D. MacQUEEN ..	353
- PASTORAL : un langage d'expression du parallélisme. E. de MASSAS et G. MAZARE	359
- System and portable language intended for distributed and heterogeneous network applications. Ng.X. DANG and G. SERGEANT	385
- On providing distributed application programmers with control over synchronization. E. ANDRE and P. DECITRE	409
- MCS : a symmetric multi-micro-processor system. G. MAZARE	415
- A few examples of how to use a symmetrical multi-micro-processor. G. MAZARE	421
- A "nested parallelism" approach to distributed computing. C. WHITBY-STREVENS	427
- Dynamic object assignment. C. WHITBY-STREVENS	447
- Probabilistic performance modelling. C. WHITBY-STREVENS	461
- Performance modelling of distributed systems using probabilistic computation structures. T.L. BOOTH and C. WHITBY-STREVENS	465
- The Honeywell modular microprogram machine M ³ . E.D. JENSEN and R.Y. KAIN	481