

## 8. REFERENCES

- Abelman, C. (2000). A parallel Universe. *Change*, 2000, 32(3), 20-29.
- ACM68. (1968). ACM Curriculum Committee on Computer Science. Curriculum 68: Recommendations for the undergraduate program in computer science. *Communications of the ACM* (March 1968).
- ACM78. (1979). ACM Curriculum Committee on Computer Science. Curriculum 78: Recommendations for the undergraduate program in computer science. *Communications of the ACM* (March 1979).
- ACM2004. (2004). Joint Task Force for Computing Curricula 2004.
- ACM. (1991). Computing Curricula 1991. *Communications of the ACM*, 43, 69 - 84.
- ACM. (2001). *Computing curricula 2001 ACM/IEEE Joint Task Force Computer Science Final Report*: ACM Press.
- ACM/IEEE. (2001). Computing curricula 2001 ACM/IEEE Joint Task Force Computer Science Final Report: ACM.
- Aljareh, S., & Rossiter, N. (2002). *A task-based security model to facilitate collaboration in trusted multi-agency networks*. Paper presented at the Proceedings of the 2002 ACM symposium on Applied computing, Madrid, Spain.
- Almedia, V., Bestavros, A., Crovella, M., & Oliveira, A. (1996, December). *Characterization reference locality in the WWW*. Paper presented at the IEEE-ACM PDIS.
- Almeida, J. M., Virgilio Almeida, & Yates, D. J. (1997). WebMonitor: a Tool for Measuring World-Wide Web Server Performance.
- Arlitt, M., & Williamson, C. (1996, May 1996). *Web server Workload Characterization*. Paper presented at the ACM SIGMETRICS Conference of Measurement of Computer Systems, Philadelphia, PA.
- Armitage, C. (1995). 'Irrelevant Degree Factories' must change with times. *The Australian*, 23.
- Ashworth, C., & Goodland, M. (1990). *SSADM: A practical Approach*. London: McGraw-Hill.
- Bailey, D. H. (1999). Challenges of future High-End Computing.
- Bailey, J., & Bakos, Y. (1997). An Exploratory study of the emerging role of electronic intermediaries. *International Journal Electronic Commerce*, 1(3).

- Baker, D. (2002). *Communications and Networking*. Retrieved 30-August-2005, 2002, from <http://docs.rinet.ru/UJ11/ch23.htm>
- Bakos, Y. (1998). The Emerging Role of Electronic Market Places on the Internet. *ACM*, 41(8).
- Bandura, A. (1986). *Social Foundations of Thought and Action*: Prentice-Hall Humanities /Social Science.
- Barker, P. G., & van Schaik, P. (1999, 1-6 July, 1999). *Mental Models and Their Implications for the Design of Computer-Based Learning Resources*. Paper presented at the Proceedings of the 4th International Conference on Computer-Based Learning in Science (CBLIS '99), University of Twente, Enschede, Netherlands.
- Barnett, B. L. (1993). *An Ethernet Performance Simulator for Undergraduate Networking*. Paper presented at the Twenty-Four SIGCSE Technical Symposium on Computer Science Education.
- Barnett, R. (2000). *Realizing the University in an age of Super complexity*. Milton Keynes UK: Society for Research into Higher Education and Open University Press.
- Bayman, P., & Mayer, R. E. (1984). Instructional manipulation of users' mental models for electronic calculators. *International Journal of Man-Machine Studies*, 20, 189-199.
- BCS. (2004, 5 May 2004). *BCS Thought Leadership Debate*. Retrieved 20 Sept 2004, 2004, from <http://www.bcs.org/BCS/News/ThoughtLeadership/pastdebates/ITSystems.htm>
- Beasley, J. (2004). Networking. In (pp. 338). Upper Saddle River, NJ: Pearson Press.
- Beeson, C., & Gay, W. (2000). *21st Century Skills Training: Computer Systems Support*. Paper presented at the 2000 ASEE Annual Conference & Exposition, St. Louis, MO.
- Ben-Ari, M. (1998). *Constructivism in Computer Science Education*. Paper presented at the Twenty Ninth SIGCSE Technical Symposium on Computer Science Education, Atlanta, GA.
- Ben-Ari, M. (2001). Constructivism in Computer Science Education. *Journal of Computers in Mathematics and Science Teaching*, 20(1), 45-73.
- Benjamin, H. (2002). *CCNP Practical Studies: Routing*. Indianapolis: Cisco Press.

- Bhimani, A. (1996). Securing the Commercial Internet. *Communications of the ACM*, 39(6).
- Bjork, R. A. (1978). The Updating of Human Memory. In G.H.Bower (Ed.) *The Psychology of Learning and Motivation*, 12.
- Boehm, B. W. (1984). *A software development environment for improving productivity*.
- Bonald, T., & Proutiere, A. (2003). Insensitive Bandwidth Sharing in Data Networks. *Queueing Systems*, 44(1), 69-100.
- Booch, G. (1978). *Object-Oriented Analysis and Design* (2nd ed.). Redwood City, CA: Benjamin/Cummings.
- Booch, G., James Rumbaugh, & Jacobson, I. (1999). *The Unified Modeling Language User Guide*: Addison Wesley longman, Inc.
- Breslau, L., Estrin, D., Fall, K., Floyd, S., Heidemann, J., Helmy, A., et al. (2000). Advances in Network Simulation. *IEEE Computer*, 33(5), 59-67.
- Bruno, A. (2003). *CCIE Routing and Switching*. Indianapolis IN: Cisco Press.
- Burgess, M. (2000). Principles of Network and System Administration. In (pp. 293). Chichester, England: John Wiley & Sons Ltd.
- Buzen, J. P. (1978). Operational Analysis: an Alternative to Stochastic Modeling. *Performance of Computer Installations*, 175-194.
- Buzen, J. P. (1984). *A Simple Model of Transaction Processing*. Paper presented at the CMG Proceedings.
- Buzen, J. P., & Shum, A. N. (1996, December 16 -18). *Beyond Bandwidth: Mainframe Style Capacity Planning for Networks and Windows NT*. Paper presented at the Proceedings of the 1996 Computer Measurement Group Conference., Olando Florida USA.
- Cahners (1997). *Causes of Downtime*. Cahners Instat Group. Retrieved March, 2002, from <http://www.instat.com/>
- Caliri, G. V. (2000). *Introduction to Analytical Modeling*. Waltham MA: BMC Software, Inc.
- Carroll, J. M., & Mack, R. L. (1992). Metaphor, computing systems and active learning. *International Journal of Man-Machine Studies*, 22, 39-57.
- Cassel, L., & Austing, R. (2000). *Computer Networks and Open Systems An Application Development Perspective*. Massachusetts: Jones and Bartlett Publishers.

- Cervero, R. M. (1992). Professional practice, learning and continuing education: an integrated perspective. *International Journal of Lifelong Education*, 11(2), 91-101.
- Chang, C. K., Cross, J., Hang, L., Mei, H., Mulder, F., Shackelford, R., et al. (2000). *CC 2001: a computing curriculum for the next ten years*. Paper presented at the ICEUT 2000.
- Chang, X. (1999). *Network simulations with OPNET*. Paper presented at the Proceedings of the 31st conference on winter simulations: Simulation-a bridge to future, Phoenix, AZ.
- Chen, C. (2003). A Constructivist Approach to Teaching: Implications in Teaching Computer Networking. *Information Technology, Learning and Performance*, 21(2).
- Chi, M. T. H., & Roscoe, R. D. (2002). The processes and challenges of conceptual change. In M. Limon & L. Mason (Eds.), *Reconsidering conceptual change: Issues in theory and practice*, pp.3-27.
- Cisco. (2002). *Cisco Networking Academy Program: Second Year Companion Guide* (2 ed.). IN: Cisco Press.
- Cisco. (2003). *Securing Cisco IOS Networks*. In C. L. Product (Ed.): Cisco Systems, Inc.
- Cisco. (2004). *Cisco Networking Academy Program*. Retrieved 18 August, 2004, from <http://cisco.netacad.net>
- Clarke, D., & Pasquale, J. (1996). Strategic Directions in Networks and Telecommunications. *Computing Surveys*, 28(4), 679 - 690.
- Clements, A. (2000). The Undergraduate Curriculum in Computer Architecture. *IEEE Micro*, 13-22.
- Cobern, W. (1991). *Contextual Constructivism: The Impact of Culture on the Learning and Teaching of Science*. Paper presented at the The Annual Meeting of the National Association for research in Science Teaching, Lake Geneva WI.
- Coe, P. S., Williams, L. M., & Ibett, R. N. (1996). An Interactive Environment for the Teaching of Computer Architecture. *ACM SIGCSE Bulletin*, 28, 33-35.
- Coleman, J. (1995). *OSI Reference Model*, from <http://www.cs.ntu.edu.au/sit/resources/dc100www/dc2001.htm>

- Coles, R. (1992). *The Spiritual Life of Children*: Continuum International Publishing Group.
- Comer, D. (1999). *Computer Network and Internets*. NJ: Prentice Hall.
- Commer, D. E. (2004). *Computer Networks and Internets*. NJ: Prentice Hall, Upper Saddle River.
- Confrey, J. (1991). Learning to Listen: A Student's Understanding of Powers of Ten. In E. von Glasersfeld (Ed.), *radical Constructivism in Mathematics Education* (pp. 111 - 138). Dordrecht, Holland.: Kluwer Academic Publishers.
- Consulting, A. (1999). *A Review of eCommerce in Australia*, from [http://www.ac.com/services/ecommerce/ecom\\_australia.html](http://www.ac.com/services/ecommerce/ecom_australia.html)
- Cooling, J. E. (1991). *Software Design for Real-Time Systems*. Cornwall: Chapman and Hall.
- D'Andrade, R. G. (1992). Schemas and motivation. In R.G.D'Andrade and C.Strauss (Eds.) *Human Motives and Cultural Models*. Cambridge.
- Davies, N., Ransbottom, S., & Hamilton, D. (1998). Teaching Networks through Modelling. *ACM SIGAda Letters*, XVIII (5), 104-110.
- Davies, P. T. (2002). *Securing and Controlling Cisco Routers*. Boca Raton FL: Auerbach Publications.
- Davis, N., Ransbottom, S., & Hamilton, D. (1998). Teaching Computer Networks Through Modeling. *Ada Letters*, XVII(Sept/Oct).
- Davis, S. A., & Bostrom, R. P. (1993). Training End Users: An Experimental Investigation of the Roles of the Computer Interface and Training Methods. *MIS Quarterly*, 17(1), 61-85.
- Dell, M. (1999). Keynote Address at DirectConnect Conference. Austin, TX
- Denning, P., & Buzen, J. P. (1978). The Operational Analysis of Queuing Network Models. *Computing Surveys*, 10(3), 225-261.
- Dennis, A. (2002). Networking in the Internet Age. In. NY: John Wiley & Sons, Inc.
- Dennis, S., & Hofer, J. (2000). Capacity Planning for e-commerce system with Benchmark Factory.
- DETYA. (2000, Thursday, 18 January 2001). *Learning for the knowledge society: An education and training action plan for the information economy*. Retrieved 1/2/2001, 2001, from

[http://www.detya.gov.au/schools/Publications/reports/learning/learning.htm#  
The Way Forward](http://www.detya.gov.au/schools/Publications/reports/learning/learning.htm#The Way Forward)

- Devlin, B., Gray, J., Laing, B., & Spix, G. (1999). *Scalability Terminology: Farms, Clones, Partitions and Packs: RACS and RAPS*, (No. MS-TR-99-85): Microsoft Research.
- DharuKeshwari, J., & Maj, S. P. (2003). Vendor-based network engineering education: an international comparison. *World Transaction on Engineering and Technology Education*, 2(2).
- Dixon, M., McGill, T., & Karlsson, J. (1997). *Using a network simulation package to teach the client-server model*. Paper presented at the Proceedings of the conference on Integrating Technology into Computer Science Education.
- Doyle, J. (2002). *Routing TCP/IP* (Vol. 1). Indianapolis IN: Cisco Press.
- Driver, R., & Bell, B. (1985). *Students' thinking and the learning of science: A constructivist view*: Centre for Studies in Science Education University of Leeds.
- Driver, R. H., & Erikson, G. L. (1984). Theories in action: Some theoretical and empirical issues in the study of students' conceptual frameworks in science. *Studies in Science Education*, 10, 37-60.
- Duffy, T. M., & Jonassen, D. (1992). *Constructivist and the technology of instruction: A conversation*. NJ: Lawrence Erlbaum Associates.
- Eck, W. V. *Electromagnetic Radiation From Video Display Units: An Eavesdropping Risk?*, 1985, from <http://web.archive.org/web/20000830130750/www.shmoo.com/tempest/emr.pdf>
- Edelson, D., Gordin, D., & Pea, R. (1999). Addressing the challenges of inquiry-based learning through technology and curriculum design. *The Journal of the Learning Sciences*, 8(3&4), 391-450.
- Edmondson, K. M. (1993). *Concept mapping for the development of medical curricula*. Paper presented at the Paper presented at the Annual meeting of the International Communication Association conference, Sydney.
- Engel, B., & Maj, S. P. (1999). *Towards Quality of Service on the Internet - an educational case study*. Paper presented at the 3rd Baltic Region Conference on Engineering Education, Goteborg, Sweden.

- Fage, D., Agosta, J., Merchant, D., Foltz, R., & Barnes, J. (2000). *CCNP Remote Access Study Guide*. Berkley CA: Osborne/McGraw-Hill.
- Fenik, H. (1998). Zona Research. *LAN Times*.
- Ferrari, D., Serazzi, G., & Zeigler, A. (1983). *Measurement and Tuning Computer Systems*: Prentice-Hall.
- Fetherston, T. (1999). Students Constructs About Energy and Constructivist Learning. *Research in Science Education*, 29(4), 515-525.
- Fetherston, T. (2002). What Information and Communication Technologies courses should be taught at a new Senior College. *Proceedings of the seventh world conference on computers in education conference on Computers in education*, 8.
- Floyd, D., & Kohler, E. (2003). Internet Research Needs Better Models. *ACM SIGCOMM Computer Communications Review*, 33(1), 29-34.
- Forrester, J. (1971). *Counterintuitive behavior of social system*. Cambridge, MA: Wright-Allen Press, Inc.
- Forrester, J. (1994). Policies, decisions, and information sources for modeling. In Morecroft, J.D.W., and Sterman, J.D. (Eds.), *Modeling for Learning Organizations*, 51-84.
- Gagne, R. (1985). *The Conditions of Learning* (Vol. 17). New York: Rinehart & Winston.
- Gane, C., & Sarson, T. (1979). *Structured Systems Analysis: Tools and Techniques*. Englewood Cliffs, NJ: Prentice-Hall.
- Gibb, T. (1988). *Principles of Software Engineering Management*. MA: Wesley, Reading.
- Gibson, D. (2002). *Making simple work of Complex functions*. Retrieved 20 June 2004, 2004, from <http://www.microconsultants.com/tips/fsm/fsmarticl.pdf>
- Gilbert, J. (1995, April 18-22). *The role of models and modelling in some narratives in science learning*. Paper presented at the The Annual Meeting of the American Educational Research Association, San Francisco, CA, USA.
- Gilbert, J., & Boulter, C. (1998). Learning science through model and modelling. In B.Fraser and K.Tobin (eds), *International Handbook of Science Education*, 52-66.
- Giuli, T. J., & Baker, M. (2003). *Narses: A Scalable Flow-Based Network Simulator*: Stanford University.

- Goldman, J. E., & Rawles, P. T. (2001). *Applied Data Communications: A business-orientated approach* (3 ed.). New York: John Wiley & Sons.
- Goldsworthy, A. W. (1993). IT and the Competency Debate - Skill vs Knowledge A Major Issue. *The Australian Computer Journal*, 25(3), 113-122.
- Gomaa, H. (1993). *Software Design Methods for Concurrent and Real-Time Systems*. Reading, MA: Addison-Wesley.
- Greenwald, R. (1999). *Oracle Essentials*: O'Reilly.
- Grice, M. (2001a). *CCNP Guide to Advanced Cisco Routing*. Boston MA: Thomson Course Technology.
- Grice, M. (2001b). *CCNP Guide to Advanced Cisco Routing*: Thomson Learning.
- Gupta, J. N. D., & Wachter, R. M. (1998). A Capstone Course in the Information Systems Curriculum. *International Journal of Information Management*, 18(6), 427-441.
- Gutierrez, J. A. (1998). A connectionless approach to integrated network management. *International Journal of Network Management*, 8(4).
- Haar, S. V. (1999). *Web Metrics: Go Figure*. Retrieved July, 2003, from <http://www.cio.com/>
- Halsal, F. (1996). *Data Communications, Computer Networks and Open Systems*. Harlow, England: Addison-Wesley.
- Havard, M., Hughes, M., & Clarke, J. (1998). The Introduction and Evaluation of Key Skills in Undergraduate Courses. *Journal of Further and Higher Education*, 1, 61-68.
- Hawryszkiewicz, I. (2001). *Introduction to Systems Analysis & Design*. Malaysia: Prentice Hall.
- Heap, G., & Maynes, L. (2002). *CCNA Practical Studies*. Indianapolis: Cisco Press.
- Hennessy, J. L., & Patterson, D. A. (1996). *Computer Architecture A Quantitative Approach* (Second Edition ed.). San Francisco, CA: Morgan Kaufmann Publishers, Inc.
- Heuring, V. P., & Jordan, H. F. (1997). *Computer Systems Design and Architecture*. Menlo Park CA: Addison Wesley.
- Hiebert, J., & Carpenter, T. P. (1992). Learning and teaching with understanding. In D.A. Grouws (Ed.) (Handbook of research on mathematics teaching and learning), 65-126.

- Hudson, K., Caudle, K., & Cannon, K. (2000). *CCNA Guide to Cisco Networking* (2nd ed.): Thomson Course Technology. Boston, MA.
- Hudson, K., Caudle, K., & Cannon, K. (2003). *CCNA Guide to Cisco Networking* (2 ed.). Boston, MA: Thomson Course Technology.
- Hughes, J. (2003). *Accreditation of Courses in Universities at the Professional Level: Guidelines for Universities* (No. ISBN 0909925 64 X). Sydney: Australian Computer Society.
- Humphrey, W. S. (1990). *Managing the software process*. MA: Addison-Wesley, Reading MA.
- Hung, C. K., & Kamalakar, K. (2003). *A secure workflow model*. Paper presented at the Proceedings of the Australasian information security workshop conference on ACSW frontiers 2003, Adelaide, Australia.
- Huy, V. V., & Chae, B. (2004). A Framework for MIS Curriculum Interdisciplinary: A Vietnamese University Case. *EJISDC*, 16(4), 1-12.
- Hyde, D. C. (2000). Teaching Design in a Computer Architecture Course. *IEEE Journal*(May/June), 23-28.
- IEEE. (1983). *IEEE Standard Glossary of Software Engineering Terminology*. New York, NY: The Institute of Electrical and Electronic Engineers.
- IEEE/ACM. (2001). *CC-2001 Task Force, Computing Curriculum (Final Draft)*, from <http://www.computer.org/education/cc2001/final>
- Jackson, D., & Chapin, J. (2000). Redesigning air traffic control: An exercise in software design. *IEEE Software*, 17(3).
- Jackson, M. (1975). *Principles of Program Design*. New York: Academic Press.
- Jackson, M. (1983). *System Development*. Englewood Cliffs, NJ: Prentice-Hall.
- Jakob, N. (2000). *Designing Web Usability, The Practice of Simplicity*. IN: New Riders Publishing.
- Jeenings, D. M., Landweber, L. H., Fuchs, I. H., Farber, D. J., & Adrion, W. R. (1986). Computer Networking for Scientists. *Science*, 231, 943-950.
- Jonassen, D. H. (1991). Evaluating Constructivist Learning. *Educational Technology*, 31(9).
- Johnson-Laird, P. N. (1983). *Mental models: Towards a cognitive science of language, inference, and consciousness*. Cambridge, MA: Harvard University Press.

- Julyan, C., & Duckworth, E. (1996). *A constructivist perspective on teaching and learning science*. New York: Teacher College Press.
- Kain, J. B. (1999). The corporate benefits of a distributed component architecture Distributed Computing Architecture /e-Business Advisory Service Executive Report. 2(11), 1-29.
- Kargl, F., Maier, J., & Weber, M. (2001). *Protecting web servers from distributed denial of service attacks*. Paper presented at the tenth international conference on World Wide Web, Hong Kong.
- Karmel, P. (1995). Education and the Economic Paradigm in Confusion Worse Confounded - Australian Education in the 1990s. *Academy of Social Sciences in Australia - Occasional Paper Series, 1*.
- Keitel, C. (1992). *Is there a real Chance for "Mathematics and Science for All Americans"?* Paper presented at the Proceedings of the University of Chicago School Mathematics Project International Conference on Mathematics Education., Chicago, USA.
- Khan, A., Kadir, K., Shaikh, A., & Kidwai, R. (2001). *Impact of Influx of computer science graduates from developing countries to Europe and North America*. Paper presented at the 31st ASEE/IEEE Frontiers in Education Conference, Reno, NV.
- Kheir, N. A. (1996). Motivation and overview. In N.A. Kheir (Ed.), *System modeling and computer simulation*, 3-26.
- Klienrock, L. (1975). *Queuing Systems Vol I Theory*. NY.: John Wiley and Sons.
- Kneale, B., Horta, A. Y., & Box, I. (2004). *VELNET (Virtual Environment for Learning Networking)*. Paper presented at the 6th Australasian Computing Education Conference, Dunedin, NZ.
- Kocher, P., Lee, D., McGraw, G., & Rajhunathan, A. (2004). *Security as a new dimension in embedded system design*. Paper presented at the 41st annual conference on design automation, San Diego, CA, USA.
- Kohler, E., Morris, R., Chen, B., Jannotti, J., & Frans Kaashoek, M. (2000). The Click Modular Router. *ACM Transactions on Computer Systems*, 18(3), 263-297.
- Kohli, G., Maj, S. P., Murphy, G., & Veal, D. (2004). *Abstraction in Computer Network Education: A model based approach*. Paper presented at the ASEE, Salt Lake City, UT.

- Kohli, G., Maj, S. P., & Veal, D. (2000, June). *Multi-media technology - an opportunity for modern engineering education*. Paper presented at the American Society for Engineering Education (ASEE) Conference, St. Louis, MO.
- Kuhn, T. (1970). *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.
- Kurose, J., Liebeherr, J., Ostermann, S., & Ott-Boisseau, T. (2002). *ACM SIGCOMM Workshop on Computer Networking: Curriculum Designs and Education Challenges*.
- Kurose, J., & Ross, K. (2000). *Computer Networking A Top-Down Approach Featuring the Internet*. NY: Addison-Wesley.
- Kurose, J. F., & Ross, K. W. (2004). *Computer Networking: A top-down approach featuring the Internet*: Pearson, Addison Wesley.
- Lai, K., & Baker, M. (2000, August 2000). *Measuring link bandwidths using a deterministic model of packet delay*. Paper presented at the ACM SIGCOMM 2000 Conference, Stockholm, Sweden.
- Lammie, T. (1999). *Cisco Certified Network Associate Study Guide* (2nd ed.). San Francisco, CA: Sybex.
- Lammie, T., Tim, C., & Odom, S. (2002). *CCNP/CCIP BSCI Study Guide*. San Francisco, CA: Sybex.
- Lankewicz, L. B. (1998). *Resources for Teaching Computer Networks*. Paper presented at the Twenty-ninth SICSE Technical Symposium of Computer Science Education, Atlanta, GA.
- Laurillard, D. (2002). Rethinking teaching for the Knowledge society. *Education Review* (January/February).
- Laver, P. (1994). *Overview of values: An Industrial Perspective In Training Minds: How well do Employers and Educators align their values and responsibilities?* Paper presented at the Proceedings of the Industry - Education Forum, Perth Australia.
- Lazowska, E. D., John Zahorjan, Scott, G., & Graham, K. C. S. (1984). *Quantitative System Performance*. New Jersey: Prentice-Hall.
- Lea, C. L., Tsui, C., Li, B., Kwan, L. C., Chan, S. M., & Chan, A. H. W. (1999). A/I Net: A Network that Integrates ATM and IP. *IEEE Network*, January/February, 48-55.

- Lehrer, R., Horwath, J., & Schuable, L. (1994). Developing model-based reasoning. *Interactive Learning Environments*, 4(3), 219-231.
- Lewis, W. (2003). *CCNP Cisco Networking Academy Program: Multilayer Switching Guide*. Indianapolis IN: Cisco Press.
- Li, K., Shor, M. H., Walpole, J., & Pu, C. (2001). *Modeling the Transient Rate Behavior of Bandwidth sharing as a Hybrid Control System*: Oregon Graduate Institute Technical Report.
- Lilja, D. J. (2000). *Measuring Computer Performance - A Practitioner's Guide*. Cambridge: Cambridge University Press.
- Linn, M. C., & Muilenberg, L. (1996). Creating Lifelong Science Learners: What Models form a firm Foundation. *Educational Researcher*, 25(5), 18-24.
- Little, J. (1961). A proof of the queuing formula  $L=YW$ . *Operations Research*, 9, 383-387.
- Little, J. D. C. (1961). A proof of the queuing formula  $L = \text{Lambda } W$ . *Operations Research*, 9, 383 - 387.
- Lovett, M. C., & Greenhouse, J. B. (2000). Applying cognitive theory to statistical instruction. *The American Statistician*, 54(3).
- Maj, S. P. (2000). *Modeling Computer and Network Systems - a new 'soft' technique for soft systems analysis*. Paper presented at the Teaching and Learning Forum 2000, Curtin University of Technology, Perth.
- Maj, S. P., Fetherston, T., Charlesworth, P., & Robbins, G. (1998). *Computer & Network Infrastructure Design, Installation, Maintenance and Management - a proposed new competency based curriculum*. Paper presented at the The Proceedings of the Third Australasian Conference on Computer Science Education, The University of Queensland, Brisbane, Australia.
- Maj, S. P., & Kohli, G. (2002, May 27-28). *B-Node: A bridge between the business model, information model and infrastructure model*. Paper presented at the Seventh Caise/IFIP-WG8.1 International Workshop on Evaluation of Modeling Methods in System Analysis and Design, Toronto.
- Maj, S. P., & Kohli, G. (2004, June 25-28, 2004). *A New State Model for Internetworks Technology*. Paper presented at the Informing Science + Information Technology Education Joint Conference, Rockhampton, QLD Australia.

- Maj, S. P., & Kohli, G. (2004). A New State Model for Internetworks Technology. *Journal of Information Technology Education, 1*.
- Maj, S. P., Kohli, G., & Fetherston, T. (2005). *A Pedagogical evaluation of new state model diagram for teaching internetworking technologies*. Paper presented at the 28th Australasian Computer Science Conference, Newcastle, Australia.
- Maj, S. P., Murphy, G., & Kohli, G. (2004, 20-23rd Oct, 2004). *State Models for Internetworking Technologies*. Paper presented at the 34th ASEE/IEEE Frontiers in Education Conference, Savannah, GA.
- Maj, S. P., Robbins, G., Shaw, D., & Duley, K. W. (1996). Computer and Network Installation, Maintenance and Management - A Proposed New Curriculum for Undergraduates and Postgraduates. *The Australian Computer Journal, 30*(3), 111-119.
- Maj, S. P., & Veal, D. (2000a). Is Computer Technology Taught Upside Down? *5th Annual SIGCSE/SIGCUE conference on Innovation and Technology in computer Science Education Helsinki, Finland, ACM*.
- Maj, S. P., & Veal, D. (2000b). Computer Technology Curriculum - A New Paradigm for a New Century. *Journal of Research and Practice in Information Technology, 32*(August/September), 200-214.
- Maj, S. P., & Veal, D. (2001). *Controlling Complexity in Information Technology: System and Solutions*. Paper presented at the International Association of Science and Technology for Development (IASTED) conference on Computers and Advanced Technology in Education (CATE 2001), Banff, Canada.
- Maj, S. P., Veal, D., & Boyanich, A. (2001a) *B-Nodes - A New Architectural Abstraction model for engineering students*. Paper presented at the 4th UICEE Annual Engineering Education Conference, Bangkok, Thailand.
- Maj, S. P., Veal, D., & Boyanich, A. (2001b) *A New Method for controlling Information Technology Hardware Complexity*. Paper presented at the American Conference on Information Systems, Boston, MA.
- Mandla, E. (2004). Pieces of Paper. *PC Authority*, 14-16.
- Marca, D., & McGowan, C. (1988). *SADT: Structured Analysis and Design Technique*. New York: McGraw-Hill.

- Marti, W. F., & Hamilton, J. J. A. (1996). *Packet tracing exercises*. Paper presented at the In Workshop at the 1996 Special Interest Group on Computer Science Education, Philadelphia.
- Marti, W. F., Pooch, U. W., & Hamilton, J. A. (1996). *Packet Tracing: a new paradigm for teaching computer networking courses*. Paper presented at the Integrating Technology into Computing Science Education, Barcelona, Spain.
- Mayer. (1982). *Putting General Education to Work: The Key Competencies Report*. . Melbourne: AEC/MOVEET.
- McComas, B. (2001, 2/4/2001). *Can the Pentium 4 Recover?* Retrieved 19th April, 2001, from <http://www.inqst.com/articles/p4bandwidth/p4bandwidthmain.htm>
- McDonald, M., Rickman, J., McDonald, G., Heeler, P., & Hawley, D. (2001). Practical experiences for undergraduates computer networking students. *JCSE*, 16(3), 261-270.
- McGregor, M. (2001). *Semester Five Companion Guide, Advanced Routing*. Indianapolis: Cisco Press.
- McQuerry, S. (2000). *Interconnecting Cisco Network Devices*. IN: Cisco Press.
- Menasce, D. A., & Almeida, A. F. (2002). *Capacity Planning for Web Services. Metrics, Models, and Methods*. Upper Saddle River NJ: Prentice Hall.
- Menasce, D. A., Almeida, V. A. F., Fonseca, R. C., & Mendes, M. A. (1999). *A Methodology for Workload Characterization for E-Commerce Servers*. Paper presented at the ACM Conference in Electronic Commerce, Denver, CO.
- Menasce, D. A., & Almendia, V. A. F. (1999). A methodology for workload characterization for e-commerce server. *ACM conference in Electronic Commerce, Denver, CO, ACM*.
- Menasce, D. A., Almendia, V. A. F., & Dowdy, L. W. (1994). *Capacity Planning and Performance Modeling: From Mainframes to Client-Server Systems*. Upper Saddle Rive, NJ: Prentice Hall.
- Menasce, D. A., Almendia, V. A. F., & L.Dowly. (1994). *Capacity Planning and Performance Modeling*. NJ: Prentice Hall.
- Menasce, D. A., Daniel Barbara, & Dodge, R. (2001). *Preserving QoS of E-commerce Sites Through Self-Tuning: A Performance Model Approach*. Paper presented at the 3rd ACM conference on Electronic Commerce, Tampa, FL.

- Menasce, D. A., Virgilio, A. F., & Almeida. (2000). *Scaling for E-Business: Technologies, Models, Performance, and Capacity Planning*.
- Merriam, S., & Caffarella. (1991, 1998). *Learning in Adulthood. A comprehensive guide*. San Francisco, CA: Jossey-Bass.
- Merrill, M. D., Li, Z., & Jones, M. (1991). Instructional Transaction Theory: An Introduction. *Educational Technology*, 31(6), 7-12.
- Milrad, M., Spector, M., & Davidsen, P. (2002). Model facilitated learning. In *Learning and teaching with technology: Principles and practices*. London, UK: Kogan Page Publishers.
- Minch, R., & Tabor, S. (2003). Networking Education for the New Economy. *Journal of Information Technology Education*, 2.
- Mirabile, R. J. (1997, August). Everything you wanted to know about competency modeling. *Training and Development*, 51, 73 -78.
- Moallem, M. (2001). Applying Constructivist and Objectivist learning theories in the design of a web-based course: Implications for practice. *Educational Technology & Society*, 4(3).
- Mogul, J. C. (1995, May). *Operating system support for busy Internet servers*. Paper presented at the Proceedings of the fifth workshop on Hot Topics in Operating Systems.
- Moran, T. P. (1981). The command language grammar: a representation for the user interface of interactive computer systems. *International Journal of Man-Machine Studies*, 15, 3-50.
- Morgan, M., & Dennis, C. (2001). *CCNP Remote Access Exam Certification Guide*. Indianapolis IN: Cisco Press.
- Morris, C. (1999). *White Paper: The cost of security on Cisco Routers*. Retrieved Wednesday 20 October 1999, from <http://www.computerweekly.com/Article42115.htm>
- Mudge, T. (1996). Strategic directions in computer architecture. *ACM Computing Surveys*, 28(4), 671-678.
- Mueller, S. (2002). *Scott Mueller's Upgrading and Repairing PCs* (13 ed.). Indianapolis, IN: QUE.
- Murphy, G., Kohli, G., Veal, D., & Maj, S. P. (2004). *An Examination of Vendor-Based Curricula in Higher and Further Education in Western Australia*.

- Paper presented at the American Society for Engineering Education (ASEE), Salt Lake City, UT.
- Murphy, K. (1998). *Western Australian Upper Secondary Schooling Science the 1960s*. Murdoch, Perth, WA.
- Nakagawa, Y., Suda, H., Masahiro, U., & Mida, Y. (2003, November 5-8). *An Innovative Hands-on Laboratory for teaching a networking course*. Paper presented at the 33rd ASEE/IEEE Frontiers in Education Conference, Boulder, CO.
- Naraymann, R., & Neethi, S. (2001). *Building Software Engineering Professionals: TCS Experience*. Paper presented at the Proceedings of the 14th Conference on Software Engineering Education and Training: "in search of a software engineering profession", Charlotte NC.
- Naumann, J. D., & Jenkins, A. M. (1982). *Prototyping: the new paradigm for system development*: MIS Quarterly.
- NEEB. (1995). *Demand for and Dimensions of Education and Training* (Commissioned No. 39). Canberra: National Board of Employment Education and Training (NBEET).
- Neufeld, M., Jain, A., & Grunwald, D. (2002). *Nsclick: Bridging Network Simulation and Deployment*. Paper presented at the International Workshop on Modeling Analysis and Simulation of Wireless and Mobile Systems, Atlanta, Georgia.
- Nieh, J., & Leonard, O. C. (2000). Examining VMware. *Dr Dobb's Journal*(August 2000).
- Nielsen, J. (2000). *The Usability Life Cycle*, from <http://www.developer.ibm.com/library/articles/nielsen3.html>
- Norman, D. R. (1983). Some observations on mental models. *In D.Gentner and A.Stevens (eds), Mental Models*.
- Norman, D. R. (1993). *Things that make us smart*: Perseus Books.
- Novak, J. D. (1991). Clarify with concepts maps: A tool for students and teachers alike. *The Science teacher*, 58(7), 45-49.
- Novak, J. D. (1993). How do we learn our lesson?: Taking students through the process. *The Science Teacher*, 60(3), 50-55.
- Nwana, H. S. (1997). Is Computer Science Education in Crisis. *ACM Computing Surveys*, 29(4), 322-324.

- Odom, W. (2000). *Cisco CCNA Exam #640-507 Certification Guide*. Indianapolis, IN: Cisco Press.
- Oppenheimer, P. (2001). *Top-down Network Design: A systems analysis approach to enterprise network design*. Indianapolis IN: Cisco Press.
- O'Reilly Search*. Retrieved 07-July-2004, 2004
- Osterich, H. (2000). *CCNA 2.0 Prep Kit Routing and Switching*. Indianapolis IN: QUE.
- Padjen, R., Lammie, T., & Edwards, W. (2002). *CCNP Remote Access Study Guide* (2 ed.). San Francisco CA.: SYBEX.
- Pang, R., & Paxson, V. (2003). *A High-level Programming Environment for Packet Trace Anonymization and Transformation*. Paper presented at the SIGCOMM'03, Karlsruhe.
- Paquet, C., & Teare, D. (2001). *Building Scalable Cisco Networks*. IN: Cisco Press.
- Parker, B. C., & Drexel, P. G. (1996). A System-Based Sequence of Closed Labs for Computer Systems Organization. *ACM SIGCSE Bulletin*, 28(1), 53-57.
- Pattinson, C., & Dacre, T. (1998). *A network model for network management teaching*. Paper presented at the Proceedings of the Third Australasian Conference on Computer Science Education.
- Peters, J. F., & Pedrycz, W. (2000). *Software Engineering - An Engineering Approach*. New York: John Wiley & Sons.
- Pfleeger, S. L. (2001). *Software Engineering theory and practice*. Upper Saddle, River, NJ: Prentice-Hall, Inc.
- Phillip, M. (1997). *Successful e-Commerce*. Melbourne, Australia: Bookman.
- Phye, G. D. (1997). *Learning and remembering: The basis for personal knowledge construction*. (Handbook of academic learning: Construction of Knowledge ed.). San Diego, CA: Academic Press.
- Piaget, J. (1970). *Piaget's theory* (3rd ed.). New York: Wiley.
- Pignataro, C., Kazemi, R., & Dry, B. (2003). *Cisco Multiservice Switching Networks*. IN: Cisco Press.
- Pitts, J. M. (1995). Mental Models of Information: The 1993-94 AASL/Highsmith Research Award Study. *SLMR*, 23(3).
- Pooch, U. W., & Wall, J. A. (1993). *Discrete event simulation: A practical approach*. Boca Raton, FL: CRC Press.

- Posner, G. J., Strike, K. A., Hewson, P. W., & Gertzog, W. A. (1982). Accomodation of a scientific conception. Toward a theory of conceptual change. *Scince Education*, 66(2), 211-227.
- Pressman, R. S. (1992). *Software Engineering A practitioner's Approach*. Singapore: McGraw-HILL International Editions.
- Pressman, R. S. (2000). *Software Engineering A practitioner's approach*. New York: McGraw-Hill.
- Quarterman, J. S., & Hoskins, J. C. (1986). Notable Computer Networks. *Communication ACM*, 29, 932-971.
- Quinton, R. (1993). *An Introduction to Socket Programming, Computing and Communication Services*. Ontario: The University of Western Ontario.
- Ramsden, P. (1992). *Learning to teach in higher education*. London: Rutledge.
- Reed, D. (2003). *Applying the OSI Seven Layer Network Model To Information Security*: SANS Institute.
- Reeder, E. (2002). *Measuring What Counts: Memorization Versus Understanding*. Retrieved 20th July, 2004
- Reid, I. (1996). *Higher Education or Education for Hire? - Language and Values in Australian Universities*. Rockhampton, Queensland: Central Queensland University Press.
- Review, C. (1996, May). Educating the Workforce for the New Millennium. *Campus Review*, 1-7.
- Robbins, M., Schagaev, I., & Yip, J. (2003). *Effective Teaching in Theoretical IT modules*. Paper presented at the 33rd ASEE/IEEE Frontiers in Education Conference, Boulder, CO.
- Rockstrom, A., & Saracco, R. (1982). SDL-CCITT specification and description language. *IEEE Transaction on Communications*, 30 (6), 1310-1318.
- Rouse, W. B., & Morris, M. M. (1986). On Looking into the Black Box: Prospects and Limits in the search of Mental Models. *Psychological Bulletin*, 10, 349-363.
- Royce, W. W. (1970). *Managing the development of large software system: Concepts and Techniques*: Wescon.
- Rumbaugh, J., Blaha, M., Premerlani, W., Eddy, F., & Lorensen, W. (1991). *Object-Oriented Modeling and Design*. NJ: Prentice-Hall.

- Maj, S.P. & Kohli, G. (2004). New State Models for Internetwork Technology. *Issues in Informing Science and Information Technology Education*.
- Sandhu, R. (1992). *A lattice interpretation of the Chinese wall security policy*. Paper presented at the Proc. 15th NIST-NCSE National Computer Security Conference.
- Sanjaya, K., Chirag, N., & John, G. (2000). A Benchmarking suite for evaluating configurable computing systems- Status, Reflections, and Future Directions. *Eighth International Symposium on Field- Programmable Gate Arrays, Monterey, CA*.
- Schneider, G. P., & Perry, J. T. (2000). *Electronic Commerce: Course Technology*.
- Searles, D. E. (1993). An Integrated Hardware Simulator. *ACM SIGCSE Bulletin*, 25(2), 24-28.
- Security System Module*. (2004). Retrieved 14-July-2004, from <http://www.nsfocus.com/english/homepage/solutions/system.htm>
- Sevcik, K., & Mitrani, I. (1981). The Distribution of Queuing Network States at Input and Output Instants. *J.ACM*, 28(2).
- Shaughnessy, T., & Velte, T. J. (2000). *Cisco, A Beginner's Guide*. New York: Osbourne/McGraw-Hill.
- Shaw, M. (1984). Abstraction Techniques in Modern Programming Languages. *IEEE Software*, 1(4), 10-26.
- Shinder, D. L. (2001). *Computer Network Essentials*. Indianapolis: Cisco Press.
- Shklar, G. (1998). *The New York Times*.
- Skadron, K., Martonosi, M., August, D. I., D.Hill, M., Lilja, D. J., & Pai, V. S. (2003). Challenges in Computer Architecture Evaluation. *Computer*, 36, 30-36.
- Skinner, B. F. (1968). *The Technology of Teaching*. New York: Appleton-Century-Crofts.
- Smith, P. L., & Ragan, T. R. (1999). *Instructional Design*: Prentice-Hall, Inc.
- Smith, R. (2001). The computer networks course: will it all fit? *Journal of Computing Science in Colleges*, 17(2).
- Smith, R., & Francia, G. (2000). *A Hybrid Computer Networks Course for CS and IS Majors*. Paper presented at the Proceedings of ISECON 2000, Philadelphia, PA.

- Smith, W. D. (2000). *TPC-W: Benchmarking An E-commerce Solution*, from <http://www.tpc.org>
- Srimani, P., Soldon, D. L., Impagliazo, J., Hughes, J., & Nelson, V. P. (2002). *Panel on computing curricula: Computer Engineering*. Paper presented at the 32nd ASEE/IEEE Frontiers in Education Conference, Boston, MA.
- Staggers, N., & Forrcio, A. (1993). Mental models: Concepts for human-computer interaction research. *International Journal of Man-Machine Studies*, 38(4), 587-605.
- Stein, A., & Criag, A. (2000). *The Dot.Com generation: IT Practices & Skills of Transition Students*. Paper presented at the Proceedings of the on Australasian Computing Education Conference.
- Stewart, J. H. (2001, 25- 28 March). *Inspired Inquiry!/: Science Teaching and learning with MUSE*. Paper presented at the National Association for Research in Science Teaching annual meeting, St. Louis.
- Stohr, E. A., & Kim, Y. (1998a). A Model for Performance Evaluation of Interactive Systems. *Proc. 31st. Annual Hawaii International Conference on System Sciences, 4: Internet and the Digital Economy*.
- Stohr, E. A., & Kim, Y. (1998b, Jan 6-9). *A Model for Performance Evaluation of Interactive Systems*. Paper presented at the 31st. Annual Hawaii International Conference on System Sciences.
- Systems, C. (1999). *Internetworking Technologies Handbook*. In (pp. Chap.51 p.51). Upper Saddle River, NJ: Cisco Press.
- Systems, C. (2001a). *Cisco Network Academy Program: First Year Companion Guide* (2nd ed.). Indianapolis, IN: Cisco Press.
- Systems, C. (2001b). *Internetworking Technologies Handbook*. IN: Cisco Press.
- Systems, C. (2003). *Securing Cisco IOS Networks*. In (Vol. 1.0).
- Tanenbaum, A. S. (2003). *Computer Networks* (4th edition ed.). NJ: Pearson Education International.
- Tarrant, J. (2000). What is wrong with Competence? *Journal of Further and Higher Education*, 24(1), 77 - 83.
- Thomas II, T. M., Aelmans, A., Houniet, F., & T, N.-K. (2000). *Building Scalable Cisco Networks*. Indianapolis: Cisco Press.
- Thomas, R. (2000, 28-29 September). *Fewer Words, clearer picture: The value of a diagrammatic representation of ideas*. Paper presented at the Third Biennial

- Communication skills in University education (CSUE), Fremantle, WA, Australia.
- Toll, W. E. (1995). Socket Programming in the Data Communications Laboratory. *ACM SIGCSE Bulletin*, 27(1), 39-43.
- Tranter, W., Shanmugan, K. S., Rappaport, T. S., & Kosbar, K. L. (2004). *Principles of Communication Systems Simulation with Wireless Application*: Prentice Hall Communications Engineering and Emerging Technologies Series.
- Trowbridge, J. E., & Wandersee, J. H. (1994). Identifying critical junctures in learning a college course on evolution. *Journal of Research in Science Teaching*, 31, 459-473.
- Tucker, A. B., Barnes, B. H., Aiken, R. M., Barker, K., Bruce, K. B., Cain, J. T., et al. (1991). Summary of the ACM/IEEE-CS Joint Curriculum Task Force Report: Computing Curricula '91. *Communications of the ACM*, 34(6), 68-84.
- Unknown. *National Institute of Science and Technology*, from <http://www.nist.gov/dads/html/finitestatemachine.html>
- Veal, D. (2004). *An Investigation into Computer and Network Curricula*. Edith Cowan University, Perth, WA, Australia.
- Veal, D., Engel, A., & Maj, S. P. (2001). *Multiple Choice Questions on a Computer Installation and Maintenance Unit*. Paper presented at the UICEE 5th Baltic Region Seminar on Engineering Education, Gdynia, Poland.
- Veal, D., Maj, S. P., Fetherston, T., & Kohli, G. (1999). *Competency Based Assessment Techniques for use in a Computer Installation & Maintenance Unit*. Paper presented at the 3rd Baltic Region Seminar on Engineering Education, Goteborg, Sweden.
- Veal, D., Maj, S. P., & Swan, G. (2000). *Physics: Implications for Computer Technology Education*. Paper presented at the American Society for Engineering Education (ASEE) Annual Conference, St Louis, Missouri.
- Velte, T. J., & Velte, A. T. (2001). *Cisco, A Beginner's Guide* (2nd ed.). New York: Osbourne/McGraw-Hill.
- von Glasersfeld, E. (1989). Cognition, Construction of Knowledge, and Teaching. *Synthese*(80), 121-140.
- von Glasersfeld, E. (1992, February 19-23). *Sensory Experience, Abstraction, and Teaching*. Paper presented at the Alternative Epistemologies in Education Conference, University of Georgia. GA.

- von Glasersfeld, E., & Steffe, L. P. (1991). Conceptual models in educational research and practice. *Journal of Educational Thought*, 25(2), 91 - 103.
- Vygotsky, L. S. (1978). *Mind in society: the development of higher psychology processes*. Cambridge, MA:: Harvard University Press.
- Waters, J., Rees, M. J., & Coe, J. T. (2000). *CCNA Routing and Switching* (2 ed.). Scottsdale Arizona: Coriolis.
- West, L., & Bogumil, W. (2001). Immigration and the global IT work force. *Communication ACM*, 44(7), 34-38.
- Wheatley, G. H. (1991). Constructivist Perspectives on Science and Mathematics Learning. *Science Education*, 75(1), 9 - 21.
- Wichmann, A., Gottdenker, J., & Jonassen, D. (2003). *Developing a framework for conceptual change within scientific inquiry*. Paper presented at the The 3rd IEEE International Conference on Advanced Learning Technologies (ICALT'03).
- Williams, R. (2003). *Preparing for TCP/IP: The Role of CSA*. Paper presented at the 33rd ASEE/IEEE Frontiers in Education Conference, Boulder, CO.
- Wilson, B. G. (1992). *Higher Education*. Paper presented at the Higher Education and the Competency Movement, ACT, Australia.
- Woolfolk, A. E. (1998). *Educational Psychology* (2ed ed.). Boston. MA. Allyn and Bacon.
- Yurcik, W. (2001). *Different Approaches in the Teaching of Information Systems Security*. Paper presented at the Information Systems Educational Conference (ISECON), Cincinnati.
- Zamg. (2004). *Conceptual Models - Defination*. Retrieved 12 April 2004, 2004, from <http://www.zamg.ac.at/docu/Manual/SatManu/Basic/CM/CM.htm>
- Zinin, A. (2002). *Cisco IP Routing*. Boston: Addison Wesley.
- Zipf, G. (1949). *Human Behavior and the Principle of least efforts*. Cambridge, MA: Addison-Wesley.