National Technological University (NTU) was founded in 1984 as the first accredited "virtual" university. With the support of major technology companies such as IBM, Motorola, and Hewlett-Packard, NTU was formed to deliver academic courses to corporations' training facilities via a unique satellite network. In 1984, NTU also began offering degree programs using courses supplied by seven universities.

NTU drew its strength from relationships with partner institutions that, 25 years ago, were not able to provide long distance education on their own. The university provided an imaginative and unique model of educational integration as a way to award degrees through distance education.

By 2004, the higher education environment had evolved and the NTU partners had initiated their own distance education programs, changing the fundamental nature of their relationships with NTU. As this environmental change unfolded, NTU was continually challenged to remain a financially viable, small, stand-alone university. As a result, Laureate Education, Inc. (then Sylvan Learning Systems) purchased the institution, allowing NTU to continue its goal of providing cutting edge education. Through 2011 NTU, which was operated as the NTU School of Engineering and Applied Sciences within Walden University's College of Management and Technology, offered several master's degree programs with courses supplied through a consortium of U.S. universities. Courses were delivered online and via CD-ROM, DVD, and videotape.

As of 2011, NTU School of Engineering and Applied Science is no longer accepting new students into the M.S. programs in Software Engineering and Systems Engineering. Walden will continue to serve the needs of those students currently enrolled in these programs by offering the necessary courses and working with each student to ensure that they have the opportunity to complete their degree program

For Pinaki Mazumder's course (NEEP 222: Introduction to Digital Systems) and other information, see highlighted parts.

Contributing Scholars

Course	Course Number	Name	Affiliation

Theory of Computation	NCSC-3001	Carl Sturtivant	University of Minnesota
Algorithms and Data Structures	NCSC-3011	Carl Sturtivant	University of Minnesota
Introduction to Operating Systems	NCSC-3101	Jon Weissman	University of Minnesota
Analysis of Algorithms	NCSC-6021	John H. Reif	Duke University
Introduction to Parallel Computing	NCSC-6031	Ananth Grama	Purdue University
Operating Systems Principles	NCSC-6101	Jon Weissman	University of Minnesota
Programming Language Principles	NCSC-6121	Manuel Enrique Bermúdez	University of Florida
Internet Protocols	NCSC-6321	Douglas Reeves	North Carolina State
Data Communication Networks	NCSC-6333	Muriel Medard (team)	MIT
Data Communication Networks	NCSC-6333	Dina Katabi (team)	MIT
Database Management Systems	NCSC-6401	Shashi Shekhar	University of Minnesota
Distributed Database Systems	NCSC-6431	Bharat Bhargava	Purdue University
Advanced Data Structures	NCSC-8011	Sartaj Sahni	University of Florida
Communication Systems I	NEEC -6521	Gauray Sharma	University of Rochester

Digital Signal Processing I	NEEC-6551	Hamid Nawab	Boston University
Digital Signal Processing II	NEEC-6552	Hamid Nawab	Boston University
Analog and Digital Electronics	NEEI-3321	Michael Caggiano	Rutgers University
Integrated Circuit Devices	NEEI-6301	Sanjay Bannerjee	U Texas - Austin
Analysis of Electronic Circuits	NEEI-6321	Mohammed Ismail	Ohio State University
Introduction to Semiconductors	NEEI-6401	Chand Viswanathan	UCLA
Microelectronics Processing I	NEEM-6431	Franco Cerrina	U Wisconsin - Madison
Introduction to Digital Systems	NEEP- 2221	Pinaki Mazumder	University of Michigan
Digital ASIC Design	NEEP-6221	Paul Franzon	North Carolina State
Technology and Operations	NMBA- 6150	Janie Fouke	University of Florida
Marketing	NMBA- 6160	Kate Mackie	Red McCombs School of Business
Supply Chain Management	NMBA- 6313	Nancy Nix	Texas Christian University
Organizational Behavior	NMBA-6120	Joseph Champoux	University of New Mexico

Leadership and Teamwork	NMBA-6130	Joseph Harder	University of Virginia
Negotiation and Strategy	NMBA-6140	Philip Gibbs	Virginia Tech
Accounting and Finance	NMBA-6170	Linda Bowen	University of North Carolina
Marketing of Advanced Technologies	NMGT- 8735	John Bers	Vanderbilt University
Introduction to Project Management	NMGT- 6760	John Nicholas	Loyola University
Advanced Project Management	NMGT- 6761	Janice Thomas	Athabasca University
Total Quality Management and Improvement	NMGT- 8750	Mary Besterfield-Sacre	University of Pittsburgh
Introduction to Engineering Management	NMGT-6310	Lucy Morse	University of Central Florida
Operations Research Models	NMGT-8510	Jonathan Bard	U Texas - Austin
Ordinary Differential Equations	NMTH-6201	Laurene Fausett	Georgia Southern University
Probability and Statistics for Scientists and Engineers	NMTH-6701	Paul Joyce	University of Idaho
Object-Oriented Programming	NSEN-3305	Avinash Kak	Purdue University

Software Engineering	NSEN-6001	Bernd Bruegge	Technical University of Munich
Software Specification	NSEN-6251	Stephen Thebaut	U Florida
Software Unit and Integration Testing and Verification	NSEN-6411	Stephen Thebaut	University of Florida
Object Oriented Testing	NSEN- 6414	Robert Oshana	Southern Methodist University
Software System-Level Testing	NSEN-6421	James Collofello	Arizona State University
Software Project Management	NSEN-6511	Kalman Toth	Portland State University
Integrated Design and Manufacturing	NSPP- 6325	Andrew Kusiak	University of Iowa
Modeling Manufacturing Systems	NSPP- 6410	Mark Lawley	Purdue University
Systems Optimization and Analysis	NSYS- 6140	Kenneth Ragsdell	University of Missouri-Rolla
Integrated Risk Management	NSYS- 6163	James Lambert	University of Virginia
Systems Engineering and Analysis	NSYS-6120	Douglas Gemmill	Iowa State University

⦿NTU

Courses | Degree Programs | Community Login | Support

Course Schedules

• Confirmed 2005-06
all programs

• Tentative 2006-08
by program

Why NTU

• Current Contributing Scholars

• Video tour (9 minutes)

• Accreditation

Course Schedule (updated 6/2/05)

Disclaimer: Although this schedule is subject to change at any time, it represents our best estimate of course offering and production times. It is most accurate for currently produced courses in the upcoming term.

Key

i - in production - Contributing Scholar identified

s - in production - seeking Contributing Scholar

x - offered by NTU

z - Berkeley course offered by NTU

Program Codes

NCSC	Computer Science	NMTH	Math
NEEC	Elec. Eng. - Communications	NSEI	Information Science
NEEI	Elec. Eng. - Integrated Circuits	NSEN	Software Engineering
NEEM	Elec. Eng. - Microelectronics	NSPM	Special Topics
NEEP	Computer Engineering	NSPP	Special Topics
NMBA	MBA	NSYS	Systems Engineering
NMGT	Engineering Management		

Computer Engineering

Old Number	Walden Number	Course Name	Sm 05	Fl 05	Sp 06	Sm 06	Fl 06	Sp 07	Sm 07
CA 310	NEEP- 2111	Computer Architecture and Organization			i	x	x	x	
CA 361	NEEP-2161	Introduction to Microcontrollers			s	x	x		
DS 360	NEEP-2221	Introduction to Digital Systems	i	x	x	x	x	x	
CA 714-CA	NEEP-6111	Computer Architecture		z	z		z	z	
	NEEP-6164	Embedded Computer Systems			s	x	x		

CA 765	NEEP-6165	[Real-Time Computer Systems](#)						s	x
DS 780	NEEP-6181	[Fault Tolerant Systems](#)							
DS 510	NEEP-6221	[Digital ASIC Design](#)	x	x	x	x	x	x	x
DS 770	NEEP-6271	[Testing and Diagnosis of VLSI Systems](#)					s	x	x
	NEEP-8111	[Advanced Computer Architectures](#)							
	NEEP-8221	[Advanced Digital Design](#)					s	x	x

Walden University's main offices are located at 155 Fifth Avenue South, Minneapolis, MN 55401.

Telephone: 800-WALDENU(800-925-3368) or (612)338-7224. Fax: (612)338-5092.

NTU

Contributing Scholars

Sanjay Banerjee is the Cockrell Family Regents Chair Professor of Electrical and Computer Engineering and Director, Microelectronics Research

Center, at the University of Texas at Austin. He received his B.Tech from the Indian Institute of Technology, Kharagpur, and his M.S. and Ph.D. from the University of Illinois at Urbana-Champaign in 1979, 1981 and 1983 respectively, all in electrical engineering. He worked as a Member of the Technical Staff, Corporate Research, Development and Engineering at Texas Instruments Incorporated from 1983-1987.

Prof. Banerjee's recent awards include the ECS Callinan Award, 2003, IEEE Millennium Medal, 2000 and SRC Inventor Recognition Award, 2000. He is a Fellow of IEEE, Distinguished Lecturer for the IEEE Electron Devices Society, and was the General Chair of the IEEE Device Research Conference, 2002. He is currently active in the areas of ultra high vacuum and remote plasma-enhanced chemical vapor deposition for silicon-germanium-carbon heterostructure MOSFETs and nanostructures. He is also interested in the areas of ultra-shallow junction technology and semiconductor device modeling.

Prof. Banerjee's integrated circuit devices course provides a solid foundation for NTU/Walden students who want to work in the areas of integrated circuit design or semiconductor physics.

Jonathan Bard is Professor of Operations Research and Industrial Engineering (OR&IE) in the Mechanical Engineering Department at the University of Texas at Austin and holds the Industrial Properties Corporation Endowed Faculty Fellowship. In addition, he serves as Associate Director for the Center for the Management of Operations Logistics and is the Coordinator of the OR&IE Program. He received a D.Sc. in Operations Research from the George Washington University, an M.S. in Aeronautical Engineering from Stanford University, and a B.S. in Aeronautical Engineering from Rensselaer Polytechnic Institute. Over the past twenty years, he has taught courses at the University of Texas in mathematical modeling, production planning and control, optimization theory, and project management. He is an active consultant to a number of governmental agencies and national corporations. He is currently the Editor of IIE Transactions on Operations Engineering and serves on the editorial boards of the International Journal of Production Research, Computers & Operations Research, and IEEE Transactions on Engineering Management. A fellow of IIE and a senior member of both INFORMS and IEEE, he has held several offices in each of these organizations. Dr. Bard's research has been published in the leading operations research, industrial engineering, and management science journals and has received widespread recognition, including: (1) the David F. Baker Distinguished Research Award given by IIE to recognize a lifetime of achievement; (2) IIE Transactions Award for Best Application Paper; (3) Operations Research Division of IIE Outstanding Contribution Award; (4) Joint Publishers Book-of-the-Year Award; and (5) Distinguished Scholar Award given by the Japanese Ministry of Posts and Telecommunications. Before coming to the University of Texas, Dr. Bard taught at the University of California - Berkeley, Northeastern University, and The University of Massachusetts. He also worked as a program manager for the Aerospace Corporation and as a systems engineer for Booz, Allen & Hamilton. He is a registered Professional Engineer in the State of Texas.

Bharat Bhargava is Professor in the Department of Computer Science and (by courtesy) in the Department of Electrical and Computer Engineering at Purdue University. Prof. Bhargava received his undergraduate degrees in Mathematics and Electrical Engineering and his Ph.D. in Electrical and Computer Engineering from Purdue University in 1974. He taught at Cleveland State University and the University of Pittsburgh before joining Purdue University.

Prof. Bhargava investigates both theoretical and experimental aspects of distributed systems. He is interested in digital library and multimedia databases, secure mobile systems and multimedia security. Dr. Bhargava has been the editor of several technical journals. He is also a Fellow of the IEEE.

Dr. Bhargava has twice received the Outstanding Instructor award from the Purdue student chapter of the ACM and has been inducted into Purdue's Great Book of Teachers that honors instructors who have demonstrated sustained excellence in the classroom. Prof. Bhargava is very enthusiastic about teaching NTU/Walden students and provided helpful suggestions toward producing other related courses. He was among the first group of faculty to express interest in producing a course for NTU.

Manuel Enrique Bermudez is Associate Professor, Computer and Information Sciences, University of Florida. Dr Bermudez received a Bachelor of Science in Computer Science at the University of Costa Rica in 1979; A Licenciado in Computer Science from the University of Costa Rica in 1980; a Master of Science in Computer and Information Sciences from the University of California, Santa Cruz, in 1982; and a Ph.D. in Computer and Information Sciences from the University of California, Santa Cruz in 1984. In addition to his university teaching activities, Dr Bermudez has been an Instructional Consultant for IBM, a Fulbright Scholar visiting the University of Costa Rica, and a Consultant for Load Media Networks, Inc.

Dr Bermudez research interests include: Programming Languages, Compilers, Automata Theory, Programming Linguistics, and Software Engineering. He has published many papers and is the author of "Study Guide for C Programming: A Modern Approach", W.W. Norton, 1998, He is currently at work on a book on compiler construction.

Prof. Bermudez has received excellent teaching evaluations from students at the University of Florida and also been named CIS Department Teacher of the Year by the ACM student chapter at the University of Florida. Prof. Bermudez is highly enthusiastic about using distance education technology to reach NTU/Walden students and hopes that NTU/Walden programs will be made available to a global student body.

John Bers – NMGT 8735
Dr. Bers is Associate Professor of the Practice of the Management of Technology at Vanderbilt University's School of Engineering. His interests focus on how technology and industrial companies identify actual and hidden assets and realize their business value in current and emerging

markets. Currently he is at the forefront of an international effort to build an international community of research and practice for the emerging discipline of accelerated radical innovation. He served as co-chair of the First ECI Conference on "Accelerating the Radical Innovation Process," held in May in Charleston, South Carolina, and was co-chair for the March, 2005 international workshop, which laid the groundwork of a conceptual framework for accelerated radical innovation.

Dr. Bers' career in strategic marketing and business development spans thirty years and several high-technology industries. Before joining the faculty at Vanderbilt, Dr. Bers managed strategic analysis and business development at Northern Telecom Inc., and strategic and technical planning for the Gas Research Institute, the research and development arm of the U.S. natural gas industry. He has also been in private practice as a technology marketing consultant.

Dr. Bers' formal education includes a B.Sc. from Yale University in physical chemistry, an MBA from the University of Chicago, an interdisciplinary doctorate from Harvard in planning and business strategy, and a Ph.D. in Management of Technology from Vanderbilt University. He has been an active member of several national and regional professional societies and has made numerous presentations on strategic business development and repositioning to national and regional audiences.

Dr. Bers also recently developed and taught one of the nation's first pure Internet graduate level courses in the marketing of advanced technology products and services. Other university teaching assignments have included courses in the dynamics of technological change, technology policy, business policy, principles of marketing, industrial marketing, electronic commerce, and management of technology. From 1997 to 2002 he served on the faculty of National Technological University, the nation's leading provider of advanced technical education and training from a distance. He received an Outstanding Instructor award in 2003.

Mary Besterfield-Sacre – NMGT 8750
Dr. Besterfield-Sacre is an Associate Professor and a Fulton C. Noss Faculty Fellow in the Industrial Engineering Department at the University of Pittsburgh. Her principal research interests are in empirical modeling applications for quality improvement in manufacturing and service organizations, and in engineering education evaluation methodologies.

In the area of assessment and evaluation, Dr. Sacre has written numerous conference and journal papers and has given many workshops and presentations. Her research in this area has been funded by the NSF, DOE, Sloan Foundation, Engineering Information Foundation and the NCIIA. Dr. Besterfield-Sacre's research has contributed in supporting 20 graduate students and 30 undergraduate students in research. Further, she has

received numerous awards for her research and teaching efforts to include the William Kepler Whiteford Faculty Fellowship (2002 – 2004), the Carnegie Science Center's Awards for Excellence, Innovation in Post Secondary Education, Honorable Mention (2004), Top Ten Paper, 2000 Frontiers in Education Conference. Dr. Besterfield-Sacre has recently received the Beitle-Veltri Teaching Award (2004).

She received her B.S. in Engineering Management from the University of Missouri - Rolla, her M.S. in Industrial Engineering from Purdue University, and a Ph.D. in Industrial Engineering at the University of Pittsburgh. Prior to joining the faculty, Mary worked as an Industrial Engineer with ALCOA and with the U.S. Army Human Engineering Laboratory. Dr. Sacre's teaching interests are primarily in area of statistics and quality control. She is co-author of the book Total Quality Management, 3rd Edition (Prentice Hall). She is a member of IIE, ASQ, ASEE, HFS and INFORMS.

Linda Bowen – NMBA 6170
Dr. Bowen is Professor of Accounting at the Kenan-Flagler Business School of the University of North Carolina – Chapel Hill. She earned her BBA, Masters in accounting, and Ph.D. degrees from Georgia State University. She is also a consultant and certified public accountant with experience in the international accounting firm of KPMG Peat Marwick.

Dr. Bowen is an award-winning teacher. She has received the university-wide Tanner Award for Excellence in Teaching and is the recipient of an Outstanding Educators of America Award. Her teaching and research interests are in financial accounting, managerial accounting, and financial statement analysis. Dr. Bowen has received research grants from international firms for her work in globalization of accounting curricula and quality control issues faced in public accounting. She teaches in the undergraduate and graduate programs at UNC, as well as in a number of executive education programs. Dr. Bowen has also taught financial accounting, managerial accounting and control, capital budgeting, and financial planning to many organizations. She serves as the academic director for several public and private custom programs in executive education for UNC.

Peggy Brouse, of George Mason University, received her B. S. (Information Technology/Computer Science) from American University in 1978, her MBA from Marymount University in 1986, and her Ph.D. in Information Technology at George Mason University (GMU) in 1992. Dr. Brouse is an Associate Professor of Systems Engineering at GMU, and the Director of the Center for Systems Engineering Technologies. The laboratory is involved in several research areas including multimedia technology, requirements engineering, decision support, and process improvement. Research clients include DoT, VDoT, DoE, VDRPT, and Motorola. Before GMU, she worked at the MITRE Corporation where she managed and participated as a systems engineer on several projects concerned with requirements analysis, conversion, testing and quality evaluation for NIST, USDA, USGS, DoL, and DoD (Navy, Army). Dr. Brouse also worked as a systems engineer for CACI consulting to EPA and USGS and as a civil servant in the U.S. Army Computer Systems Command. During her career, she has worked in various areas, including requirements elicitation, data base

management systems, systems engineering, metrics, process improvement, decision support and knowledge engineering on various domains; including national health grants, DASD procurement, Army Reserves, employee compensation, air load planning, petroleum reporting, fleet reporting, water use, map design, payroll, savings bonds, and logistical modeling. The area of her current research encompasses using multimedia in process, improvement, knowledge engineering, decision support and requirements elicitation. She is author of many papers in these areas.

Bernd Bruegge is University Professor of Computer Science and holds the Chair for Applied Software Engineering at the Technische Universität München. He is also an adjunct professor at Carnegie Mellon University. His research interests include software architectures for dynamic systems, agile software development processes, and software engineering education. He received a PhD in computer science from Carnegie Mellon University.

Dr. Bruegge is the senior author of the textbook: "Object-Oriented Software Engineering Using UML, Patterns, and Java" , B. Bruegge , A.H. Dutoit 2nd Edition , Prentice Hall, 2003.

Prof. Bruegge received the Herbert A. Simon award for teaching excellence at Carnegie Mellon University. His course on software engineering at the Technical University of Munich involves students in a large software development project that builds from one term to the next.

Michael Caggiano – NEEI 3321
Michael Caggiano received his Ph.D. from UCLA in 1979. He became a member of the technical staff of Bell Labs in 1980 and has been a visiting professor at Rutgers University in the Department of Electrical and Computer Engineering since January 1988. At Bell Labs he was the subject matter expert in the field of electrical packaging of high performance and microwave IC packaging. The programs he developed generated the electrical circuit models of the packages for the Lucent (AT&T) entire line of high performance data processor and RF IC's. Dr. Caggiano has been an associate editor of the IEEE Transactions on Advanced Packaging from May 2002 to Present.

In September of 1996 he joined Rutgers as a full time faculty member in the Solid State Electronics Group. He has been teaching the courses of Digital Electronics, Analog Electronics, Pulse Circuits Design and the associated laboratory courses for the past 17 years. In April 1999 Dr. Caggiano received the Rutgers College Parents Association Outstanding Teacher of the Year Award.

Franco Cerrina is the McFarland-Bascom Professor in the Department of Electrical & Computer Engineering at the University of Wisconsin-Madison. Dr. Cerrina received a Ph. D. from the University of Rome in 1974. He is the director of the University of Wisconsin Center for NanoTechnology, where his research centers on the use of X-ray, electron and photon beam techniques to provide imaging of nanostructures in

the 70-100nm domain. Dr. Cerrina's main research interest is in artificially engineered structures -- micro- and nano-devices: their fabrication, application, inspection and properties. He has also developed a modeling program to predict the performance and characteristics of complex x-ray systems.

Dr. Cerrina actively collaborates with semiconductor companies and involves many postdoctoral researchers in his group. He is keen to work with NTU/Walden students and uses his distance education experience to enrich his on-campus teaching as well.

Joseph E. Champoux is a Regents' Professor of Management at the Robert O. Anderson Schools of Management at the University of New Mexico. Dr. Champoux was selected not only for his years of experience in teaching the subject matter to adult learners, including engineers and scientists, but also because he approaches the content in a unique manner by incorporating film clips from popular movies that illustrate the concepts central to the course. He received his Ph.D. in Administration from the University of California, Irvine in 1974. He has taught in The Netherlands, Mexico, France, and Brazil.

James Collofello is Professor and Associate Chair for Undergraduate Programs at Arizona State University. He received a Ph.D. from Northwestern University in 1978. Dr. Collofello joined ASU in 1979 and was instrumental in the start of the computer science degree program. Throughout his career he has maintained a close relationship with software development firms in the state working on joint research projects, developing industry training programs and serving as a software engineering consultant.

Professor Collofello's principal areas of interest in teaching and research are in software engineering. Within software engineering, his primary emphasis is software process modeling, software quality assurance and software project management. He is also very active in software engineering education projects and outreach projects to local high schools.

Dr. Collofello has been involved with several programs and university-industry partnerships to provide career-long learning for engineers and technical professionals. He brings a wealth of this experience for the benefit of NTU/Walden students.

Laurene Fausett received her bachelor's degree in Mathematics from the University of California, and the Master's degree in Physics, and Ph.D. in Mathematics from the University of Wyoming. She was a Professor of Mathematics at Florida Institute of Technology and the University of South Carolina Aiken, before joining the faculty of Georgia Southern University, where her duties include teaching undergraduate and graduate mathematics courses, supervising MS students research, and serving as the Graduate Program Director for the Department of Mathematical Sciences. Dr. Fausett is the author of four text books dealing with artificial neural networks and numerical methods, and over 50 journal, encyclopedia, and conference proceedings articles. She has given seminars and invited talks around the United States, and in Egypt, Turkey,

Bulgaria, Poland, and Mexico. She was the Co-chair of Sian Ka'an, the Second Joint Mexico-US International Workshop on Neural Networks and Neurocontrol.

Janie Fouke – NMBA 6150

Janie Fouke is Provost and Senior Vice President and Professor of Biomedical Engineering at the University of Florida, and former Dean of the College of Engineering at Michigan State University. She has expertise in medical instrumentation, the assessment of medical technology, and the impact of technology on corporate strategies and public policy. With an international reputation, she has lectured on these topics in at least 16 countries.

Dr. Fouke's honors and accolades include induction into the Russian Academy of Natural Sciences (1995), the Dexter Prize (2000) and election to Fellow level in the American Association for the Advancement of Science (1991), the American Institute of Medical and Biological Engineers (1994) and the Institute for Electrical and Electronics Engineers (2002).

Paul D. Franzon is a Professor in the Department of Electrical and Computer Engineering at North Carolina State University. Dr. Franzon received a Bachelor of Engineering with First Class Honours in Electrical and Electronic Engineering, and a Doctor of Philosophy, Electrical and Electronic Engineering from the University of Adelaide, Australia in 1984 and 1989 respectively.

The central theme to Dr Franzon's research is the design and construction of microsystems and nanosystems. Within this theme, his group designs and builds VLSI chips, FPGAs, advanced packaging structures, MicroElectroMechanical Systems (MEMS) and employs emerging nanotechnologies. Dr. Franzon's additional research areas include Architectures for Future Network Processors, Chip-Package Codesign, Low-Power Digital Circuits and other related topics.

Dr Franzon has received many educational and professional awards including being elected to the NCSU Academy of Oustanding Teachers in 2001, and the Teacher of the Year Award, presented by the IEEE Student Branch in 1997.

Dr Franzon is the co-author of three books:

- Smith and P. Franzon *: Verilog Styles for Synthesis of Digital Systems* , 2000, by Prentice Hall.

- D. Doane and P. Franzon: *Multichip Modules: Basics and Alternatives* , 1993, by Van Nostrand Rheinhold.

- J-D Cho and P.D. Franzon, *High Performance Design Automation for Multi-Chip Modules and Packages* , 1996, World Scientific.

Prof. Franzon has considerable experience in teaching distance education courses. He has a very engaging presence in his video lectures that NTU/Walden students will appreciate.

Douglas Gemmill is Associate Professor of Industrial Engineering at Iowa State University. He received a B.S. in mathematics and an M.S. in industrial engineering from Iowa State University. He received his Ph.D. in industrial engineering from the University of Wisconsin - Madison. His professional interests include simulation modeling, systems engineering, applied operations research and the modeling, design, and performance analysis of complex systems. He has taught graduate courses in systems engineering for the past six years as well as undergraduate and graduate courses in simulation modeling for the past sixteen years. He is a member of the International Council on Systems Engineering, American Society of Engineering Education, and a senior member of the Institute of Industrial Engineers. He has also spent 25 years as an officer in the United States Air Force, both active duty and as a reservist. His USAF reserve duties presently are with Air Force Materiel Command as an engineer, but he also has over 3000 hours flying experience as a navigator.

Philip Gibbs, who has taught at the MIT Sloan School of Management, Georgetown University, George Mason University, University of Maryland and Boston University, has more than 15 years of management and consulting experience. He was a principal at Hays Consulting, where he worked in R&D, operations, marketing, finance, and business planning with FMC and Allied Signal. He has a breadth of experience in both industry and academe in many content areas incorporated in MBA programs. He developed Executive MBA programs in Mergers and Acquisitions, and Corporate Governance, as well as courses in Organizatoinal Research, Mangement and Financial Statement Analysis. His extensive background in both strategy and negotiation as well as his experience in engineering and technology that brought Dr. Gibbs to our attention. He was selected to teach this unique course based on his background and strong referrals from professors who collaborated and worked with him. He earned a Ph.D. at the MIT Sloan School of Management, an M.B.A. in finance at the University of Chicago, and a B.Sc. in chemical engineering at the University of Texas at Austin. Dr. Gibbs has earned awards in Teaching Excellence and various fellowships throughout his career.

Ananth Grama is Associate Professor in Computer Science at Purdue University. Dr. Grama received his B. Eng. from the University of Roorkee (now Indian Institute of Technology, Roorkee), India, his M.S. from Wayne State University, and his Ph.D. in Computer Sciences from the University of Minnesota in 1989, 1990 and 1996 respectively. He received the National Science Foundation CAREER Award (1998–2002), the Purdue University School of Science Outstanding Teacher Award (2002), and is a Purdue University Scholar (2002-07). Dr. Grama's research specialty is parallel and distributed systems. He is an active participant in Purdue's Parallel and Distributed Systems Lab

Dr. Grama is the lead author of a recent book on parallel computing: *"Introduction to Parallel Computing", Grama, Gupta, Kumar, and Karypis, Addison Wesley, 2003;*

Dr. Grama is enthusiastic about his teaching and is excited about reaching distance education students through NTU.

Joseph Harder is an Associate Professor of Business Administration at the Darden Business School of the University of Virginia. Previously, he was Associate Director of the Leadership Program and Assistant Professor at the Wharton Business School of the University of Pennsylvania.

Dr. Harder is an enthusiastic and highly rated instructor, having received nine awards for teaching excellence. He has consulted and taught executive education sessions around the globe on topics of leadership, culture, motivation, teamwork, and organizational change for groups from Lucent Technologies, United Technologies, Unilever, USAA, PriceWaterhouse Coopers, NASA, Whole Foods Markets, The Brookings Institution, Booz Allen Hamilton, 3-COM, Goodyear, Siam Cement Group, Siam Commercial Bank, Shinawatra Group, Maraven, Theseus, and the Department of Defense.

Dr. Harder holds a B.S. degree from Bethel College, an M.B.A. from Santa Clara University, and a Ph.D. in organizational behavior from the Stanford University Graduate School of Business, where his dissertation focused on pay and performance in professional sports.

Mohammed Ismail is Professor in the Department of Electrical and Computer Engineering at Ohio State University. He received his BS and MS degrees in Electronics and Telecommunications Engineering from Cairo University in 1974 and 1978, respectively, and a Ph.D. in Electrical Engineering from the University of Manitoba in 1983. He taught at the University of Nebraska-Lincoln and joined Ohio State University in 1988. He has been a visiting lecturer at the University of Oslo, The Tokyo Institute of Technology, and the Helsinki University of Technology amongst others institutions.

Prof. Ismail's research interests are in the area of low voltage/low power VLSI circuits and mixed signal VLSI circuits for wireless communications. He is also interested in statistical modeling, simulation, and optimization of VLSI circuits. Dr, Ismail has received several patents in the areas of analog, RF, and mixed signal ICs, co-edited and co-authored several books including "Analog VLSI Signal and Information Processing" (McGraw Hill, 1994), edited several technical journals, and co-founded two companies later acquired by Mentor Graphics and Firstpass Semiconductors AB. He also started and is the director of the Analog VLSI Lab at Ohio State. Dr. Ismail is a Fellow of the IEEE.

Prof. Ismail received an Outstanding Teaching Award from the IEEE student chapter at the University of Nebraska-Lincoln. He has graduated more than 30 Ph.D. students and more than 60 M.S. students. Prof. Ismail is looking forward to sharing his circuit design knowledge and CAD expertise with NTU/Walden students. He will also provide advice regarding CAD computing support for NTU/Walden. He is among the first faculty who agreed to join the roster of NTU/Walden Contributing Scholars.

Paul Joyce is Professor of Mathematics and Bioinformatics and Adjunct Professor of Statistics at the University of Idaho where he heads a research group with a focus on interdisciplinary research related to mathematical modeling and statistical analysis. Dr. Joyce came to our attention while teaching courses for NTU in the traditional partner arrangement. He had excellent teaching evaluations and taught content appropriate to the technical community being served by this course. Dr. Joyce teaches several courses in Statistics and Mathematics at his home institution and is the author of numerous research papers in this area.

Avinash C. Kak is Professor in the School of Electrical and Computer Engineering at Purdue University. Dr. Kak received his Bachelor of Electronics and Communications Madras University, India and his Ph.D. from the Indian Institute of Technology, Delhi, India in 1966 and 1970 respectively.

He has received numerous teaching awards including: The Potter Best of Engineering Teaching Award, 2002; The Wilfred Duke Hesselberth Award for Teaching Excellence in the School of Electrical and Computer Engineering, 2001; The Honeywell Award for Outstanding Teaching in Electrical and Computer Engineering, 2000; the D. D. Ewing Award for Outstanding Teaching in Electrical and Computer Engineering, 1998.

Dr. Kak's main focus of research during the last fifteen years has been the development of sensory perception and cognition for autonomous systems of the future. Dr Kak is the founder of the Purdue Robot Vision Lab, which performs state-of-the-art research in sensory intelligence for the machines of the future. He has received numerous research grants and contracts to pursue his research.

Dr. Kak is the co-author of three books on computing:

- A. C. Kak, "Programming with Objects: A Comparative Presentation of Object- Oriented Programming with C++ and Java", published by John Wiley, 2003.

- A. C. Kak and M. G. Slaney, "Principles of Computerized Tomographic Imaging," IEEE Press, 1988; republished by SIAM in 2001.

- A. Rosenfeld and A. C. Kak, "Digital Picture Processing," Academic Press, New York: Second edition: 1982.

Prof. Kak is an engaging teacher whose innovative course on object-oriented program devlopment compares C++ and Java in their varying approaches to addressing object-oriented programming issues.

Dina Katabi is Assistant Professor in the Massachusetts Institute of Technology Computer Science & Artificial Intelligence Lab. Dr Katabi received the MIT EECS - 2003 Sprowls Doctoral Dissertation Award for her doctoral dissertation. Her research interests are in computer networks and data communication. Her specific research interests encompass congestion control, network measurements, scalability and robustness of distributed

systems, routing, content distribution, peer-to-peer systems, self-configurable and wireless networks, and network security. Dr. Katabi has a particular interest in adapting tools from various fields of applied mathematics such as control theory, coding theory, and AI to solve problems in computer networks. Dr. Katabi has published many papers in the area of computer networks.

Dr. Katabi has worked jointly with Prof. Muriel Medard to record a course on data communication networks especially for NTU/Walden students.

Andrew Kusiak – NSPP 6325

Dr. Andrew Kusiak is a Professor of Mechanical and Industrial Engineering at the University of Iowa, Iowa City. He is interested in the theory and applications of computational intelligence, data mining, and optimization in product development, manufacturing, healthcare, and pharmaceutical industry. He has published research papers in journals sponsored by ASME, IEEE, IIE, INFORMS, ESOR, IFIP, IFAC, IPE, ISPE, and SME. Dr. Kusiak speaks frequently at international meetings, conducts professional seminars, and consults for industrial corporations. He has served on the editorial boards of two dozen journals and has authored and edited numerous books. He is the Editor-in-Chief of the Journal of Intelligent Manufacturing.

James Lambert – NSYS 6163

James H. Lambert is the Associate Director of the Center for Risk Management of Engineering Systems at the University of Virginia. He is a Research Associate Professor in the Department of Systems and Information Engineering at the University of Virginia. He has led and participated in numerous risk management projects with government and industry. He is a member of the Society for Risk Analysis, the Systems, Man, and Cybernetics Society of the Institute for Electrical and Electronic Engineers, the American Society for Industrial Security, the American Society of Civil Engineers, and other professional organizations. He is a licensed Professional Engineer and a member of the National Society of Professional Engineers.

Mark Lawley – NSPP 6410

Mark Lawley is Associate Professor of Industrial Engineering at Purdue University, West Lafayette, IN. He received the BS in Industrial Engineering from Tennessee Tech University in 1982, the MS in Manufacturing Systems Engineering from Auburn University in 1988, and the PhD in Mechanical Engineering from the University of Illinois at Urbana Champaign in 1995. He has worked in manufacturing engineering positions with Westinghouse Electric Corporation, Emerson Electric Company, and the Bevill Center for Advanced Manufacturing Technology, a technology transfer and manufacturing consulting center in Gadsden, AL. In these positions, he worked on projects involving tooling design, quality control, robotics, metrology, programmable control, CNC, and simulation technologies. As a researcher in acedemics, he is author of over 50 technical papers in manufacturing systems design and control and has won two best paper awards. He is an Associate Editor for IEEE Transactions on Automation

Science and Engineering and Associate Editor for the Society of Manufacturing Engineering's Journal of Manufacturing Systems and Journal of Manufacturing Processes. His research is in the areas of design and control of automated systems and has been supported by the National Science Foundation, Union Pacific, and General Motors.

Kate Mackie – NMBA 6160
Dr. Kate Mackie is an award-winning senior lecturer in the Department of Marketing at the Red McCombs School of Business, as well as in MS programs at the IC2 Institute and the College of Engineering at the University of Texas at Austin. She teaches MBA, Executive Education, and Undergraduate classes in marketing, marketing strategy, marketing of technological innovations, buyer behavior, process improvement facilitation, international business operations, global projects, and customer insight. She was presented the Outstanding Faculty Award by the 2001, 2002, 2003, and 2004 MSSTC graduating classes at IC2, and by the Summer, 2003 and 2004 graduating classes in Executive Engineering Management. She was elected to the MBA Faculty Honor Roll in March of 2003, and again in 2004. Her research interests fall in the areas of change management, employee involvement, customer service, total quality management, and work stress.

Dr. Mackie has fifteen years experience in both high technology and consumer products marketing, in both international and domestic arenas. Her marketing career began as a systems support representative with National Semiconductor Corporation's Systems Division in 1975 and includes eleven years of domestic and international consumer products marketing with The Pillsbury Company. She joined the Green Giant division of The Pillsbury Company in 1978 and, from 1984 to 1989, was Director of Marketing and New Business Development at Pillsbury's subsidiary in Caracas, Venezuela. During that time, her primary objectives were to initiate local agricultural, processing, and marketing operations for the Green Giant canned vegetable business and to launch the products into the Venezuelan market. Activities included strategic and tactical planning, financial planning and analysis, contract negotiation, government relations, marketing management, market research, advertising agency management, and investigation of new business development opportunities, including acquisitions and new product development.

Dr. Mackie's experience with high technology started with her early work experience with National Semiconductor Corporation and has continued to this time. Since joining the faculty at the Red McCombs School of Business and the IC2 Institute she has been involved in student projects with a number of high tech industries. She teaches the marketing course in IC2's MS in Science and Technology Commercialization and, through her work in that program, she has assisted many student teams in developing marketing plans for a wide variety of technological innovations.

Dr. Mackie's education includes an MBA in International Management from the American Graduate School of International Management (Thunderbird, 1974) and a Ph.D. in Educational Psychology with a focus on social psychology, from the University of Texas at Austin (1995). Dr.

Mackie is president of Catalystics, a company focused on coaching and facilitating ad hoc teams, managers, and executives through problem solving and process improvement projects.

Pinaki Mazumder – NEEP 2221

Pinaki Mazumder received a B.S.E.E. degree from the Indian Institute of Science in 1976, a M.Sc. degree in Computer Science from the University of Alberta, Canada, in 1985, and a Ph.D. degree in Electrical and Computer Engineering from the University of Illinois at Urbana-Champaign in 1988. Presently, he is a Professor at the Department of Electrical Engineering and Computer Science of the University of Michigan, Ann Arbor. After finishing his BSEE, he worked at Bharat Electronics Ltd. in India for over six years developing several types of analog and digital integrated circuits for consumer electronics products. During the summer of 1985 and 1986, he worked as a Member of the Technical Staff at AT&T Bell Laboratories. During 1996-1997, he spent his sabbatical leave at Stanford University, University of California at Berkeley, and Nippon Telephone and Telegraph, Japan.

Professor Mazumder's research interests include VLSI testing, layout automation, and VLSI circuit design. He has published over 200 papers on these topics in archival journals and proceedings of numerous international conferences. Dr. Mazumder was a recipient of Digital's Incentives for Excellence Award, BF Goodrich National Collegiate Invention Award, National Science Foundation Research Initiation Award, DARPA Research Excellence Award, and Bell Northern Research Laboratory Faculty Award. In 1999, he became an IEEE Fellow for his contributions in the field of VLSI.

Dr. Mazumder has lead his research group's efforts in VLSI testing and built-in self-repair techniques and has developed silicon compilers for RAM, ROM and PLA with built-in self-repairable capabilities. He is the co-author of three books on semiconductor memories: "Testing and Testable Design of High-Density Random-Access Memories" (Springer Verlag), "Fault-tolerance and Reliability Techniques for Random-Access Memories," (Prentice Hall), and "Semiconductor Random-Access Memories: Testing and Reliability" (Computer Press). Dr. Mazumder has also done quite extensive work in the area of VLSI physical design. He has developed a suite of distributed place-and-route tools for VLSI and FPGA chips. He has co-authored a book, entitled: "Genetic Algorithms for VLSI Design, Layout, and Test Automation" (Prentice Hall). Dr. Mazumder has worked over six years as an integrated circuit designer in semiconductor companies. He currently leads circuit design activities for nano- and quantum-electronic devices. He has developed Quantum-SPICE circuit simulator and numerous circuit topologies for quantum MOS devices. Several US and Japanese semiconductor companies including Texas Instruments, Hughes Research Laboratory, Lockheed Martin, NTT and NEC have been collaborating with him on this research work. He has served as the guest editor of two special issues on emerging nano technologies and their applications in IEEE Transactions on VLSI Systems (December 1997) and the Proceedings of the IEEE (1998). He was on the Editorial Board of

Muriel Médard is a Harold E. and Esther Edgerton Associate Professor in the Electrical Engineering and Computer Science at the Massachusetts Institute of Technology and a member of the Laboratory for Information and Decision Systems. She has also worked at the University of Illinois Urbana-Champaign and at MIT Lincoln Laboratory. Professor Médard received B.S. degrees in EECS and in Mathematics in 1989, a B.S. degree in Humanities in 1990, a M.S. degree in Electrical Engineering in 1991, and a Sc D. degree in Electrical Engineering in 1995, all from the Massachusetts Institute of Technology. She serves as an Associate Editor for the Optical Communications and Networking Series of the IEEE Journal on Selected Areas in Communications and as an Associate Editor in Communications for the IEEE Transactions on Information Theory.

Professor Médard's research interests are in the areas of reliable communications, particularly for optical and wireless networks. She was awarded the IEEE Leon K. Kirchmayer Prize Paper Award 2002 for her paper, "The Effect Upon Channel Capacity in Wireless Communications of Perfect and Imperfect Knowledge of the Channel," published in the IEEE Transactions on Information in May 2000. She was a co-recipient of the Best Paper Award at the Fourth International Workshop on the Design of Reliable Communication Networks (DRCN 2003), October 2003, Banff, Alberta, Canada. She received an NSF Career Award in 2001 and was co-winner of the 2004 Harold E. Edgerton Faculty Achievement Award, established in 1982 to honor junior faculty members "for distinction in research, teaching and service to the MIT community."

Prof. Medard is team teaching the Data Communication Networks course with Dr. Katabi to provide NTU/Walden students with a rigorous and engaging learning experience.

Lucy C. Morse is an associate professor and Director of Engineering Technology at a Distance at the University of Central Florida. In 2002 she was named a Faculty Fellow, representing Engineering, to the UCF Academy for Teaching, Learning, and Leadership. She was selected to teach this course for NTU based on her extensive experience in teaching at a distance as well as her background in the subject area. Dr. Morse is coauthor of Managing Engineering and Technology (2002), 3rd Ed., from Prentice Hall. This past year, Dr. Morse was elected a Fellow in ASEE and was recipient of a Teaching Incentive Award from the College of Engineering and Computer Science. She received her Ph.D. in Industrial Engineering and was the first woman to receive a doctorate in engineering from UCF. In the early 90's she served as a Program Manager at the National Science Foundation in the Engineering Directorate. Dr. Morse has served as an examiner for the Baldrige Award and the Florida Sterling Award. She has lectured on engineering management, quality management, and distance education nationally as well as in Spain, Romania, Ukraine, Germany, and Antarctica.

S. Hamid Nawab is Professor & Associate Chairman in the Department of Electrical and Computer Engineering at Boston University. Dr Nawab's education includes a B.S. in Electrical Engineering, a M.S. in Electrical Engineering and Computer Science, and Ph.D. in Electrical Engineering, all

from the Massachusetts Institute of Technology.

Dr Nawab's current research interests cover the areas of DSP Environments & Architectures, Wideband Restoration of Originals from Recordings, and Processing & Understanding of Electro-physiological signals (EMG, EKG etc.) and Acoustic Signals (Speech, Environmental Sounds, Music etc.)

Prof. Nawab was recognized as the College of Engineering Professor of the Year in 1987 and 1998 at Boston University. He also received the University-Wide Metcalf Award for Excellence in Teaching in 1993.

Prof. Nawab is keenly interested in the progress of NTU/Walden students in his classes and regularly monitors his virtual classrooms.

John Nicholas – NMGT 6760
Dr. Nicholas is Professor of Information Systems and Operations Management, and former Associate Dean of Graduate Studies in the School of Business Administration at Loyola University, Chicago.
Dr. Nicholas has been a project team leader, engineer, and systems analyst at Lockheed-Martin, Argonne National Laboratory, and Bank of America. He is the author of 30 articles appearing in academic and technical trade publications, and three textbooks, Competitive Manufacturing Management: Continuous Improvement, Lean Production, and Customer-Focused Quality (1998), Project Management for Business and Engineering: Principles and Practice, 2 nd edition (2004), and The Portal to Lean Production: Principles and Practices for Doing More with Less (2005). He has a BS in aerospace engineering and MBA in systems analysis from the University of Illinois, and a PhD in industrial engineering and applied behavioral science from Northwestern University.

Nancy Nix – NMBA 6313
Dr. Nix is the Director of the Supply and Value Chain Center and Associate Professor of Supply Chain Practice in the Neeley School of Business at Texas Christian University. Dr. Nix completed her doctorate in Logistics and Marketing at the University of Tennessee, where her research focused on global supply chain management, demand forecasting, and distribution service quality. She has 15 years management experience with the DuPont Company, with progressive managerial responsibilities in operations, logistics, procurement, contracted manufacturing and customer service. She spent 1 ½ years as VP of Logistics for Reliance Industries Ltd., headquartered in Mumbai, India.

Dr. Nix teaches Global Supply Chain Management, Supply Chain Information Technology, and Supply Chain Strategy courses at both the graduate and undergraduate levels and was the recipient of an MBA Faculty Award in 2005. She conducts executive education programs, consults with companies to help them improve supply chain performance, and has been an invited speaker on supply chain management at numerous industry and academic forums. Dr. Nix is an active member of the Council of Supply Chain Management Professionals (CSCMP) and the Institute for Supply

Management (ISM) and currently serves on the Research Strategies Committee of CSCMP.

Robert Oshana - NSEN 6414

Rob Oshana is an engineering manager in the Software Development Organization at Texas Instruments. He has been in the software engineering field in a variety of positions for over 20 years. He is a licensed professional engineer and a Senior Member of IEEE. He speaks regularly at conferences on the topic of software engineering and real-time systems. He has numerous publications and a book on software engineering development. He is an adjunct professor at Southern Methodist University where he teaches a variety of software engineering courses.

Kenneth Ragsdell – NSYS 6140

Professor Ragsdell received his B.S. and M.S. in Mechanical Engineering from the University of Missouri-Rolla and his Ph.D. from the University of Texas at Austin. Prior to his current appointment he served ten years on the design faculty in Mechanical Engineering at Purdue University, and later as Professor of Aerospace and Mechanical Engineering and Director of the Design Optimization Laboratory at the University of Arizona in Tucson. He was Chairman of Mechanical and Aerospace Engineering, Huber O. Croft Professor of Engineering and Director of the Design Productivity Center at the University of Missouri in Columbia prior to his current appointment on the Rolla campus. He was Associate Vice Chancellor for Academic Affairs / Extension with responsibility for all academic outreach programs from July of 1989 until his return to full-time teaching and research in September of 1992. Dr. Ragsdell is a graduate of the General Motors Quality College and a founding member of the Board of Directors of the Missouri Quality Award. He later served on the Board of Overseers of the Missouri Quality Award.

Prior to his teaching career, he worked in industry as a mechanical designer for Moog Industries, Inc. in St. Louis, Missouri; and International Business Machines Corporation / Office Products Division in Austin, Texas. He has spent several summers on industrial assignments involving engineering design, analysis, modelling, instrumentation and optimization with particular emphasis on high-speed machines, such as direct impact printing devices. He has served as consultant to a number of companies including IBM, Xerox, General Motors, John Deere, Procter and Gamble, Whirlpool, Honeywell, Argonne National Laboratory, and Ford; and as President of a small consulting company, CAD Services, Inc. He is a registered professional engineer in Texas.

Dr. Ragsdell's major area of expertise (in teaching, research, and practice) is the engineering design process with a specialty in computer-aided design and optimization and quality engineering. He is the author of over 100 technical publications and a significant number of technical reports. He is co-author of the textbook, Engineering Optimization: Methods and Applications; author of the textbook, Applied Numerical Methods (in three volumes); co-editor of the book, New Directions in Optimum Structural Design; co-editor of the book, Progress in Engineering Optimization 1981; and editor of the books, CAD/CAM, Robotics and Automation International Conference and Institute Proceedings. He has been active in the development and presentation of shortcourses and conferences for practicing engineers and managers. He was the originator of the ASME course,

Computer Aided Design and Manufacturing Technology, and has taught numerous courses in-plant and on various university campuses on engineering design optimization, numerical methods, computer aided design and quality engineering.

Dr. Ragsdell was editor of an ASME Press book series entitled International Advances in Design Productivity, which includes a book by Dr. Genichi Taguchi on Robust Design.

Dr. Ragsdell has received numerous awards and honors including the Halliburton Outstanding Teacher Award at the University of Arizona in 1982; Tau Beta Pi Eminent Engineer Award in 1986, elected to membership on the Xerox Corporation Design Institute Board of Directors in 1986 and the General Motors Product and Manufacturing Functional Plan Task Force (the only external member) in 1987. He is past chairman and co-founder of the ASME Design Automation Committee, and has been active in ASME at the local, regional and national level since 1968. He is also a member of the National Society of Professional Engineers, Texas Society of Professional Engineers, Missouri Society of Professional Engineers, Missouri Academy of Science, Society of Manufacturing Engineers, Society of Automotive Engineers, American Society for Engineering Education, Mathematical Programming Society, Pi Tau Sigma, Kappa Mu Epsilon, Sigma Xi and Phi Kappa Phi. Dr. Ragsdell is a Fellow of the American Society of Mechanical Engineers, and won the ASME Design Automation Award in 1993. He later gave the keynote address at the ASME Design Engineering Division 50th anniversary meeting in Boston in September, 1995. Dr. Ragsdell was elected a Senior Fellow of the Japan Society for the Promotion of Science and spent the month of December, 1995 lecturing throughout Japan on Quality, Engineering and Management.

Douglas S. Reeves is Professor of Computer Science and Electrical and Computer Engineering at North Carolina State University.

Dr. Reeves received a B.A. in Biology from Indiana University, a M.S. in Computer Science from the University of Louisville, and a Ph.D. in Computer Science from Pennsylvania State University in 1975, 1982, and 1987 respectively.

Dr. Reeves has received several scholarly and professional honors, including an Undergraduate Teaching Award from the Department of Computer Science, NC State University. In 1988, and the Professional Engineer of the Year Award from the Department of Computer Engineering and Computer Science, University of Louisville, in 2003.

Dr. Reeves has consulted for several companies including Nortel Networks. Dr Reeves is currently involved with research projects related to network intrusion detection.

Prof. Reeves's courses at NC State provide extremely well-organized web-based support for his students and he brings the same high level of sensitivity to student needs to the students at NTU/Walden.

John H. Reif is the A. Hollis Edens Professor at Trinity College of Arts and Sciences, Duke University. Dr Reif has been Professor of Computer Science at Duke University, since 1986; prior to that he taught at Harvard.

Dr Reif's research interests include: Biomolecular Computing and Self-Assembly of DNA Nanostructures; Parallel Algorithms for Graphs, Algebra, Geometry and Sorting; Randomized, Algebraic, Numerical and Data Compression Algorithms; and Alternative Models of Computation: Quantum Computing, Optical Computing; Molecular Electronics.

Prof. Reif has chaired many conferences and is Program Chairman for the forthcoming Second Conference on FOUNDATIONS OF NANOSCIENCE: SELF-ASSEMBLED ARCHITECTURES AND DEVICES(FNANO05), Snowbird, Utah, April 24 April 28, 2005. He has also published widely and is the editor of several books.

Prof. Reif is a Fellow of the Institute of Electrical and Electronics Engineers (IEEE), the Association for Computing Machinery (ACM), and the American Association for the Advancement of Science (AAAS). He is also an avid skier and windsurfer. NTU/Walden students will benefit from his wide range of technical expertise and his well-organized courses.

Sartaj K. Sahni is Distinguished Professor and Chair , CISE, University of Florida. He receive a B.Tech. (Electrical Engineering) from the Indian Institute of Technology, Kanpur, in 1970. a M.S. in Computer Science from Cornell University in 1972, and a Ph.D. in Computer Science also from Cornell University in 1973.

Dr Sahnis areas of specialization include sequential and parallel data structures and algorithms, scheduling, optimization, VLSI CAD, computational geometry, and some other areas.

Dr Sahni is the author or co-author of several books including:

- Software Development in Java, Sartaj Sahni and Raj Kumar, Silicon Press, New Jersey, 2003.

- Data Structures, Algorithms, and Applications in Java, Sartaj Sahni, McGraw Hill, NY, 2000.

- Computer Algorithms, Ellis Horowitz, Sartaj Sahni, and Sanguthevar Rajasekeran, W. H. Freeman,1998.

- Fundamentals of Data Structures in C++, Ellis Horowitz, Sartaj Sahni, and Dinesh Mehta, W.H. Freeman 1995.

Prof. Sahni is a Fellow of the IEEE, ACM, and AAAS. Other recent honors include the IEEE Computer Society W. Wallace-McDowell Award, 2003.

Citation: For contributions to the theory of NP-hard and NP-complete problems; and the ACM Karl Karlstrom Outstanding Educator Award, 2003. Citation: For outstanding contributions to computing education through inspired teaching, development of courses and curricula for distance education, contributions to professional societies, and authoring significant textbooks in several areas including discrete mathematics, data structures, algorithms, and parallel and distributed computing.

Prof. Sahni has been associated with NTU/Walden since NTU's beginnings in the nineteen eighties. He has served as faculty chair for NTU's Computer Science program for many years. He brings a close familiarity with NTU students and a wealth of teaching and research experience to new NTU/Walden students.

Gauray Sharma – NEEC 6521

Gaurav Sharma is an Associate Professor in the Electrical and Computer Engineering Dept at the University of Rochester. He has been with the department since Fall 2003 prior to which he was a member of research staff at Xerox corporation and held the position of Principal Scientist and Project Leader in the Xerox Innovation Group. He received the Ph.D. in Electrical and Computer Engineering from North Carolina State University, Raleigh, NC, and masters degrees in Applied Mathematics from NCSU and in Electrical Communication Engineering from the Indian Institute of Science, Bangalore, India. He received his bachelor of engineering degree in Electronics and Communication Engineering from Indian Institute of Technology, Roorkee (formerly, Univ. of Roorkee).

Dr. Sharma is a senior member of IEEE, a member of the IEEE Signal Processing and Communications Societies, and of the Society for Imaging Science and Technology. He is also an elected member of Sigma Xi, the scientific research society and the Phi Kappa Phi and Pi Mu Epsilon honor societies. Dr Sharma currently serves as an associate editor for IEEE Transactions on Information Forensics and Security, the IEEE Transactions on Image Processing and the SPIE Journal of Electronic Imaging. He is the editor of the "Digital Color Imaging Handbook" published by CRC press.

Shashi Shekhar received the B. Tech degree in Computer Science from the Indian Institute of Technology, Kanpur, India, in 1985, the M.S. degree in Business Administration and the Ph.D. degree in Computer Science from the University of California, Berkeley, CA, USA, in 1989. He is currently a Professor of Computer Science the University of Minnesota, Minneapolis, MN, USA. His research interests include spatial databases, spatial data mining, geographic and information systems (GIS), and intelligent transportation systems.

Prof. Shekhar is a co-author of a textbook on Spatial Databases (Prentice Hall, 2003, ISBN 0-13-017480-7) and has published over 100 research papers in peer-reviewed journals, books, and conferences, and workshops. He is a co-Editor-in-Chief of Geo-Informatica and has served on the editorial boards of IEEE Transactions on Knowledge and Data Engineering as well as the IEEE-CS Computer Science & Engineering Practice Board.

Dr. Shekhar is a Fellow of the IEEE Computer Society and has also served as a technical advisor to the United Nations Development Program,

Microsoft and Terradata. He was awarded a Bush Foundation Excellence in Teaching award at the University of Minnesota.

NTU/Walden students will benefit from Prof. Shekhar's clear and careful explanations of database concepts and his gentle presence in the electronic classroom.

Carl Sturtivant is in the Computer Science and Engineering Department at the University of Minnesota. Dr. Sturtivant received his BA and MA in Theoretical Physics in 1979 and 1982, and his MS in Computer Science in 1980 at Churchill College, Cambridge University, England. He received his Ph. D. in Computer Science from Edinburgh University, Scotland, in 1983. The engineering students at the University of Minnesota have voted him as "Professor of the Year" in Computer Science four years in a row. Dr Sturtivant 's teaches courses on Internet Programming, Algorithms, and Computational Complexity.

Dr. Sturtivant is a highly effective lecturer with a reputation for presenting even the most complex topics with complete clarity. Students at Minnesota will often wait one or more terms just so they can take a particular course from him. Dr. Sturtivant is looking forward to teaching NTU students.

Stephen M. Thebaut is Associate Chair in the Department of Computer and Information Science and Engineering and Site Director of the Software Engineering Research Center at the University of Florida. He received a BA in Mathematics from Duke University in 1977 and a MS and PhD in Computer Science from Purdue University in 1979 and 1983 respectively.

His research interests are in software testing and requirements engineering. He has published many papers and taught short courses for industry including a testing workshop for IBM.

Prof. Thebaut has been associated with NTU for many years and currently teaches a course on software specification. He will be a recording a course on software testing in the summer of 2005. Dr. Thebaut is very familiar with NTU students' needs having served as an NTU faculty advisor for several years. NTU/Walden students can look forward to learning from his courses.

Janice Thomas - NMGT 6761
Dr. Janice Thomas is an associate professor of Project Management and Program Director for the Executive MBA in Project Management at the Centre for Innovative Management (CIM) at Athabasca University. She is also an adjunct professor in the University of Calgary joint Engineering and Management Project Management Specialization and a visiting professor with the University of Technology, Sydney where she supervises Master and PhD research students. Prior to becoming an academic, Janice spent 10 years as a project manager in the fields of Information

Technology and Organizational Change. Janice is now an active researcher presenting and publishing her research to academic and practitioner audiences around the world.

Janice's research interests include organizational change, project management, teambuilding and leadership, complexity theory in relation to organizations and the professionalization of knowledge workers. Recent research projects have explored: the Path to Professionalization for Project Management; the Role of the Personality of the Project Manager in Project Management Competency; the Impact of Differing Sensemaking Approaches on Project Communication; the Nature of the Assumptions underlying Project Management Methodologies; the Relationship between Certification and Professional Attitudes; how to Sell Project Management to Senior Executives. Ultimately all of her research is aimed at improving the practice of project management in organizations. She is currently leading a major research initiative commissioned by the Project Management Institute aimed at Defining and Measuring the Value Project Management Contributes to Organizations.

Kal Toth is Associate Professor in the Department of Computer Science at Portland State University. Dr. Kalman (Kal) Toth joined Portland State University's Department of Computer Science in the fall of 2003.

Dr. Toth holds a Ph.D. in System Engineering and Computer Science from Carleton University in Ottawa, Ontario, Canada and is a member of the British Columbia Association of Professional Engineers and Geoscientists (APEGBC) with a Software Engineering designation. He is Associate Director of the Oregon Master of Software Engineering (OMSE). He is conducting research in the field of network security and privacy exploring technical strategies and mechanisms for secure information sharing, identity theft prevention and critical infrastructure protection.

Dr. Toth has over 25 years of industry and academic experience in the fields of software engineering, information security, software project management and distributed systems and networks. His has taught at Oregon State University, the Technical University of British Columbia and other Canadian universities. His industry experience includes some 20 years of consulting and systems engineering for Intellitech Canada Ltd, the CGI Group Inc., several Canadian government departments, Simba Technologies (now Pivital Corporation), Honeywell, and the BC Software Productivity Centre. He was Director of Quality for Hughes Aircraft of Canada's Advanced Air Traffic Control System and VP Engineering for Datalink Systems Corp. (now Semotus Solutions Inc.) an m-commerce (mobile/wireless) services company.

Dr. Toth teaches an innovative software product development course that is structured around a case study that evolves as the course progresses. NTU/Walden students will find his course to be highly instructive and enjoyable.

C.R. Viswanathan received his undergraduate education in India and his Ph.D. degree from U.C.L.A. in 1964. He is a professor of Electrical Engineering at U.C.L.A. and has been a faculty member since 1962. His area of research is semiconductor electronics and in particular the physics

and modeling of devices. His research is in low temperature device behavior, thin oxide characterization, and device modeling. His areas of interest also include semiconductor device physics, and VLSI technology and devices.

In the 1960's, Dr. Viswanathan created the undergraduate and graduate courses in Solid State Electronics and developed Solid State Electronics as a major field of study at U.C.L.A. both at the undergraduate and graduate levels.

Dr. Viswanathan has been honored for excellence in teaching through several awards. He received the Distinguished Teaching Award from the U.C.L.A. Academic Senate. He was given the Western Electric Fund Award sponsored by A.S.E.E. for excellence in engineering education. He was awarded the Distinguished Faculty Award sponsored by the Engineering Alumni Association. One year he was chosen by the U.C.L.A. Alumni Association to be written up as one of the seven faculty members who are outstanding teachers in the campus in a publication that was sent to all undergraduate students. He recently received the Undergraduate Teaching Award from the Institute of Electrical and Electronic Engineers in December 1997 for his inspirational teaching and for setting up the solid-state electronics curriculum.

Prof. Viswanathan has worked extensively with industry, notably as a founding member and chairman of the Executive Committee of the California MICRO program. He also taught short courses with the UCLA Extension program. He understands the situation of working engineers and is happy to be able to reach them through NTU classes.

Jon Weissman is Associate Professor of Computer Science in the Department of Computer Science and Engineering at the University of Minnesota, Twin Cities, Minnesota. Dr. Weissman received his BS in Applied Mathematics and Computer Science from Carnegie-Mellon University in 1985, and his M.S. and Ph.D. in Computer Science from the University of Virginia in 1989 and 1995, respectively.

Dr. Weissman's research is in the area of distributed systems. His broad interest lies in the area of middleware and systems to support newly emerging applications on distributed networks. Currently, he is working in the areas of Grid Computing, and Intelligent Storage. Dr. Weissman is also interested in pervasive computing and expects to define projects in the near future. He is also affiliated with the Minnesota Supercomputing Institute (MSI) and the Digital Technology Center (DTC).

Dr. Weissman is Subject Area Editor, Grid and Distributed Computing for the Journal of Parallel and Distributed Computing. He has also been a member of the program committee for numerous conferences.

Prof. Weissman's courses are very well organized and he has been regularly recognized as an outstanding instructor by Computer Science students at the University of Minnesota. He brings the same dedication to serving students at NTU/Walden.

NTU

155 Fifth Avenue South Suite 600, Minneapolis, MN 55401.