# Ravi Patnayakuni

Associate Professor of Information Systems      ravi.patnayakuni@uah.edu
Department of Information Systems, Supply Chain & Analytics      256.824.6155
College of Business
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**Education**
- **D.B.A (MIS),** 1992–1997 Southern Illinois University at Carbondale
- **M.B.A,** 1986–1988 Indian Institute of Management, Lucknow, India
- **B.E (Hons.) Civil Engineering,** 1981–1985 BITS, Pilani, India

**Certificates**
- **SAP Business Associate –** 2011, 2018
- **Certified ERPsim Instructor (Level 2)** – 2016
- **AWS Cloud Practitioner** - 2022

**Academic experience:**
- **Associate Professor,** Summer 2004 – Present, Department Information Systems, Supply Chain and Analytics, University of Alabama- Huntsville
- **Assistant Professor,** Spring 2000 to 2004 Department of MIS, Fox School of Business and Management, Temple University
- **Assistant Professor,** Fall 1998– Fall 1999 Department of Comp. and Info. Sciences, College of Science and Technology, Temple University
- **Visiting Assistant Professor,** Spring 1998 Department of Management, College of Business and Administration, Southern Illinois University at Carbondale
- **Research Fellow,** Fall 1996–Fall 1997 Department of Information Systems, Faculty of Science, The University of Melbourne, Melbourne, Australia

**Teaching Activities:  Summary list of courses taught, theses advised**
- Computer Applications in Business
- Database Analysis and Design
- Information Architecture and Networking
- Knowledge Management Systems
- Information Systems in Organizations
- Systems Analysis and Design
- Themes in IS Research
- Contemporary Topics in IS Research
- Research Methods
- User Interface Design
- Information System Design and Implementation
- Management of Information Technology
- Advanced Computer Programming in Business
- Supply Chain Management Systems
- Enterprise Systems
- Telecommunications and Networking
- Information Systems Strategy and Applications

**Research, Creative, and Scholarly Activity:**

Refereed Journal Articles:

- Fong, E. A., R Patnayakuni and A Wilhite, "Accommodating Coercion: Authors, Editors and Citations," *Research Policy*, 52(5), (2023), 104754.

- Patnayakuni, N. and R Patnayakuni, "Does Cybersecurity Education Focus on the Right Things? A Professions Based Approach to Cybersecurity Education and the NICE Framework," *Cybersecurity Skills Journal: Practice and Research*, (November 2020), 82 -87.

- Wilhite, A, L Burns, R Patnayakuni, and F Tseng, "Military supply chains and closed-loop systems: resource allocation and incentives in supply sourcing and supply chain design," *International Journal of Production Research*, 52(7) (2014) 1926-1939.

- Xu, Y, R Patnayakuni, and H Wang. "The ordinal consistency of a fuzzy preference relation." *Information Sciences*, 224(1) (2013) 152-164.

- Xu, Y, R Patnayakuni, and H Wang. "Logarithmic least squares method to priority for group decision making with incomplete fuzzy preference relations." *Applied Mathematical Modelling,37(4)* (2013) 2139-2152.

- Xu, Y, R Patnayakuni, and H Wang. "A method based on mean deviation for weight determination from fuzzy preference relations and multiplicative preference relations." *International Journal of Information Technology and Decision Making*, 11(3) (2012) 627-641.

- Patnayakuni, R, C Ruppel, "A socio-technical approach to improving the systems development process," *Information Systems Frontiers*,12(2) (2010) 219-234

- Mandviwalla, M, R Patnayakuni and D Schuff, "Improving the peer review process with IT," *Decision Support Systems, 46(1)* (2008) 29-40.

- Hornyak, R, Lewis, M Lewis, R Patnayakuni and A Rai. "Business network agility for global demand-supply synchronization: A comparative case study in the apparel industry" *Journal of Global Information Technology Management*, 11(2), (2008) 5 – 29.

- Patnayakuni, R, A Rai and A Tiwana, "Systems development process improvement: A knowledge integration perspective," *IEEE Transactions on Engineering Management*, 54(2),(2007) 286-300. .

- Patnayakuni, R, C Ruppel and A Rai, "Managing the complementarity of knowledge integration and process formalization for systems development performance," *Journal of the Association of Information Systems*, 7, 8 (2006), 545 – 567.

- Patnayakuni, R, A Rai, and N Seth, "Relational antecedents of information flows in supply networks," *Journal of Management Information Systems,* 23, 1 (2006), 13-49.

- Rai, A, R Patnayakuni, and N Seth, "Firm performance impacts of digitally-enabled supply chain integration capabilities," *MIS Quarterly,* 30, 2 (2006), 225-246.

- Hovav, A, R Patnayakuni, and D Schuff, "A model of Internet standards adoption: The case of IPv6," *Information Systems Journal 14, 3* (2004), *265-294*.

- Patnayakuni, R and A Rai, "Development infrastructure capabilities and process capability," *Communications of the ACM*. 45, 4ve, (2002), 201- 210.

- Kock, N and R Patnayakuni, "Who is in the driver's seat? The evolution of collaboration technologies in organizations," *Organization & Society*, 6, 16, (2000), 21-33.

- Patnayakuni, R and N Patnayakuni, "Information processing theory as a guide to choosing information delivery models on the WWW," *Journal of Scientific and Industrial Research*, 58, 2, (1999), 203-210.

- Seddon, P, S Staples, R Patnayakuni and M Bowtell, "Dimensions of IS success," *Communications of the AIS*, 2, 20, (1999), 1-60

- Rai, A, R Patnayakuni and N Patnayakuni, "Technology investments and business performance," *Communications of the ACM*, 40, 7, (1997), 89-97.

- Rai, A and R Patnayakuni, "A structural equation model for CASE adoption behavior," *Journal of Management Information Systems*, 13, 2, (1996), 205-234.

- Rai, A, R Patnayakuni and N Patnayakuni, "Refocusing where and how IT value is realized." *Omega: The International Journal of Management Science*, 24, 4, (1996), 399-412.

Peer Reviewed Book Chapters

- Patnayakuni, N, R Patnayakuni, and J N D Gupta. "Towards a Model of Social Media Impacts on Cybersecurity Knowledge Transfer: An Exploration." in *Harnessing Social Media as a Knowledge Management Tool*, edited by R Chugh (2016): p.249.
- Seth, N, R Patnayakuni, "Online matrimonials and the transformation of arranged marriage in India," in *Social Networking Communities and eDating Services: Concepts and Implications*, edited by C. Romm and K. Setzekorn, Information Science Reference, Hershey, PA, (2008) 329-352.

Abstracts and Papers Delivered at Professional Meetings:

- Patnyakuni R, H Pham and M Shen, "From Content to Quiz: Using AI to Simplify Assessment Question Development." TRED Talk, *SAP Academic Community Conference North America and ERPsim User Group Meeting*, 2024, Montreal, Canada.
- Patnayakuni R, and W MacKenzie, "Human Resources Analytics Adoption: A Motivation, Opportunity and Ability Model." *AMCIS 2019*, Cancun, Mexico.
- Ravi Patnayakuni, and Nainika Patnayakuni, "Securing Serverless Computing." *Workshop on Information Security and Privacy, ICIS 2018*, San Francisco, CA
- Patnayakuni R, and N Patnayakuni, "Information Security in Value Chains: A Governance Perspective." *AMCIS 2014*, Savannah, GA.
- Gupta J, E Kalaimanna and R Patnayakuni, "IDS alarms investigation with limited resources" (December 15, 2012) *Workshop on Information Security and Privacy*, a preconference workshop at ICIS 2012. Orlando, Florida. (D)
- Patnayakuni R, N Patnayakuni, and W H Orman, "Who are our students? A profile of IS majors" (December 5, 2011). *ICIS 2011 Proceedings.* International Conference on Information Systems, Shanghai, China.Paper 8.
- Tang Xinlin, R Patnayakuni, and A Rai , "Why Do They Share Information with Supply Chain Partners? A Comparison of Supplier and Buyer Perspectives". *ICIS 2011 Proceedings.* International Conference on Information Systems, Shanghai, China. Paper 6.

- Patnayakuni N, R Patnayakuni R and J Gupta, "Multitasking While Chatting with Friends: A Social Translucence Perspective" *Proceedings of the 41st Annual Meeting of the Decision Sciences Institute*, San Diego, CA, November 2010, Paper 488.
- Patnayakuni N, Patnayakuni R and Berkowitz D, "Adopting New Software: Drivers of Voluntary Adoption in the same Product Category" *AMCIS 2010*, Lima, Peru Proceedings. August 2010, Paper 489.
- Orman W. H, and R Patnayakuni, "Going to School, Getting a Job: What Determines Business Students' Job Prospects?" presented at the 2010 *Southern Economic Association Annual Meeting*, November 2010.
- Patnayakuni, R, N Seth and A Rai, "Building social capital with IT and collaboration in supply chains: An empirical investigation" *International Conference on Information Systems*, Milwaukee, WI, December 2006.
- Marie-Kelley, J, P Xiang and R Patnayakuni, "OOo can I have that? An examination individual adoption of Open Office software" *Americas Conference on Information Systems*, Acapulco, Mexico, August 2006.
- Zou, S and R Patnayakuni, "Analysis of IT strategic alignment and infrastructure capability in BPR implementations," *2004 Americas Conference on Information Systems*, New York, NY, August 2004, pp. 3726-3735.
- Patnayakuni, R, N Patnayakuni and A Rai, "A mediated impacts model of demand volatility on inventory flow integration in supply chains," *International Conference on Information Systems*, Seattle, WA, December 2003, pp. 222-232.
- Patnayakuni, R and N Patnayakuni, "Social translucence and the use context of instant messaging," *Annual Meeting of the Decision Sciences Institute*, Washington, DC, November 2003.
- Patnayakuni, R and N Patnayakuni, "Organizational flexibility and information flow integration," *2003 Americas Conference on Information Systems*, Tampa, FL, August 2003, pp. 573-580.
- Jain, A and R Patnayakuni "Public expectation and public scrutiny: An agenda for research in the context of E-Government," *2003 Americas Conference on Information Systems*, Tampa, FL, August 2003, pp. 811 - 820.
- Patnayakuni, R and A Rai, "Systems development performance improvement: A knowledge creation and embedding perspective." *Academy of Management Conference*, Denver, CO, 2002.
- Patnayakuni, N, A Rai and R Patnayakuni, "Architecting the digitally enabled relational firm," *Academy of Management Conference*, Denver, CO, 2002.
- Patnayakuni, R, N Patnayakuni and A Rai, "Towards a theoretical framework of digital supply chain integration," *European Conference on Information Systems*, Gdansk, Poland, 2002, 1014-1028.
- Patnayakuni, R and John Darcy, "Assessing the impact of supply chain management software on company performance," *Americas Conference on Information Systems*, Dallas, TX, 2002, 2345-2349.
- Patnayakuni, R and N Patnayakuni, "Incorporating the social perspective to the adoption of the application service provider model," *Americas Conference on Information Systems*, Boston, MA, 2001, 1848-1850.
- Hovav, Anat, R Patnayakuni and D Schuff, "Internet technology diffusion: The adoption of IPv6," *European Conference on Information Systems*, Bled, Slovenia, 2001.
- Patnayakuni, R "Business process reengineering: The Australian experience," *International Conference of the Information Resources Management Association*, Hershey, PA, 1999.

- Patnayakuni, R and N Patnayakuni, "Delivering desktop service with push technology," *International Conference of the Information Management Resources Association*, Hershey, PA, 1999.
- Seddon, P, S Staples, R Patnayakuni and M Bowtell, "IS Effectiveness Matrix: A Taxonomy of IS Effectiveness Measures" *International Conference on Information Systems*, Helsinki, Finland, December 1998.
- Patnayakuni, R and A Rai, "The Impact of Technology Characteristics on Infusion of Software Development Tools," *Americas Conference on Information Systems, Baltimore*, MD, August 1998.
- Patnayakuni, R and A Rai "Information technology infusion: conceptual and empirical assessment," *European Conference of Information Systems*, Aix-en-Provence, France, June 1998.
- Patnayakuni, R and N Patnayakuni "Information Processing Theory as a Guide to Delivering Information on the Web" *BITWORLD*, Delhi, India, March 1998.
- Patnayakuni, R, A Rai, and N Patnayakuni "IT and Business Value: Insights from DEA Analysis," *Americas Conference on Information Systems*, Phoenix, AZ, August 1996.
- Patnayakuni, R and N Patnayakuni, "IT Expenditure and Organizational Performance: A Structural Equation Model," *Annual Meeting of the Decision Sciences Institute,* Boston, MA, November 1995.
- Patnayakuni, N and R Patnayakuni "GDSS Impact on Organizational Learning" *Annual Meeting of the Decision Sciences Institute*, Boston, November 1995.
- Patnayakuni, R and N Patnayakuni "A Socio-technical Approach to CASE and Software Development Process," *Americas Conference on Information Systems*, Pittsburgh, PA, August 1995.
- Rai, A, R Patnayakuni, and N Patnayakuni, "The Effect of Information Technology Investment on Intermediate Performance of Firms," *International Conference on Information Systems* (Research in Progress), Vancouver, Canada, December 1994.
- Patnayakuni, R and N Patnayakuni, "Impact of CASE Technology on Software Maintenance," in Proceedings of the *25th Annual Decision Science Institute Meeting*, Honolulu, Hawaii, 1994.
- Patnayakuni, R and N Patnayakuni, "Matching Software Process Maturity and CASE Tool Philosophy," in Proceedings of the *25th Annual Decision Science Institute Meeting*, Honolulu, Hawaii, 1994.
- Patnayakuni, R and N Patnayakuni, "Information Technology Expenditure and Organizational Performance: An Empirical Investigation," in Proceedings of the *25th Annual Decision Science Institute Meeting*, Honolulu, Hawaii, 1994.
- Patnayakuni, R, N Patnayakuni and R Neunaha "Leaders in IT Spending: Do they Lead in Performance ?" in Proceedings of the *25th Annual Decision Science Institute Meeting*, Honolulu, Hawaii, 1994.
- Patnayakuni, R and N Patnayakuni, "Formulation, Implementation and Control in Strategic Management: Logical, Empirical, or Specious ?" with Nainika Patnayakuni in Proceedings of the *25th Midwest Decision Science Institute Meeting*, Cleveland, Ohio, 1994.
- Patnayakuni, R, W Ho and A Ramaprasad, "Modelling Strategic Choice Decisions using Artificial Neural Networks," in Proceedings of the *24th Annual Decision Science Institute Meeting*, Washington, DC, 1993.

Papers under review

- Pham, H, Y Tan, T Singh, V Pavlopoulos and R Patnayakuni, "A Multi-Head Attention-Like Feature Selection Approach for Tabular Data". *Knowledge-Based Systems,* First revision submitted June 2024.
- Pham, H, P Bhatt, V Pavlopoulos, Y Tan and R Patnayakuni, "A Comparative Study of Convolutional Neural Networks and Vision Transformers for Agricultural Image Classification". *Knowledge-Based Systems,* under first review.
- Pham, H, V Pavlopoulos, R Patnayakuni, S Verderbar and K Bliss, "The Hidden Keywords: An Algorithmic Approach to Uncovering the Value of Negative Keywords in Search Advertising". *Decision Sciences Journal,* under first review.
- Orman, W H and R Patnayakuni, "Optimal Regulation of Compatibility in Competing Proprietary and Open Two-Sided Platforms" *Information Economics and Policy*, under first review.
- Pavlopoulos, V, H Pham, P Bhatt, Y Tan, R Patnayakuni, "decp: An R Package for Multiple Change Point Analysis of Multivariate Data for Changes in the Covariance Structure". Submitted to the *Annual Meeting of the Decision Sciences Institute*, 2024.

Research grants and Contracts Received:

- 2017 SAP Research Grant, College of Business, UAH
- 2014, 2015, 2016, 2017, SAP Curriculum Innovation Grants, College of Business, UAH
- 2011 Mini-grant College of Business Administration, UAHuntsville.
- 2010 Hohai University Research Grant
- 2010 SAIC Contract
- 2008 UAH Research Mini-grant.
- 2007 UAH Instructional Mini-grant.
- 2002 Temple University, Summer Research Fellowship
- 2000 Microsoft Curriculum Grant Project: *Curriculum development*
- 1999 Temple University, Project: Creating an Online Database Course
- 1997 The University of Melbourne, Project: *Consumer perceptions of risk in shopping on the World, Wide Web.*
- 1997 Spl. Initiatives Grant, The University of Melbourne Project: *BPR Practices in Australia*
- 1996 Pontikes Center for Management of Information, SIU Project: *Information Technology Enabled Change in Work Systems*
- 1995 Pontikes Center for Management of Information, SIU Project: *Developing a Business Telecommunication and Network Management Course at the Undergraduate Level.*
- 1994 Pontikes Center for Management of Information, SIU Project: *Creation of Business Value from Investments in Distributed Computing: The Impact of Information Systems Role and Contextual Factors.*

**Service Activities (Service to institution, profession, discipline, other):**

- Senior Editor of Information Systems Journal – 2016 -
- Director, Enterprise Systems Lab, College of Business, UAH – 2021 –
- Scholarship Committee, College of Business, UAH – 2022 -
- University Employee Benefits Committee – 2019 - 2022

- University Financial Aid Committee – 2018 – 2022
- SAP Consultant, Geeks and Nerds, Huntsville – 2021-2022
- Cybersecurity Curriculum Development, CCRE, UAH - 2022
- UAH 10 Year Strategic Plan Committee – 2021-2023
- Cybersecurity Faculty Search Committee – 2022 - 2023
- Chair, Information Systems Faculty Search Committee – 2021 -2022
- University Fitness Center Financial Review Committee, UAH - 2021
- 5 Year Review and Reappointment Committee for College of Business Dean – 2020-2021
- ACT Committee (Review ACT Requirements for Admission) UAH – 2020-2021
- Associate Editor of Decision Sciences Journal – 2014 -2020
- Associate Editor of Information Systems Journal – 2009 – 2016
- Graduate School Committee – 2014 – 2016
- College Curriculum and Assessment Committee – 2014 –2019
- Student Conduct Board – 2014 - 2017
- University Review Board – 2013- 2015.
- Faculty Advisor – AIS Student Chapter 2010 – 2011.
- URI Grant Committee – 2010, 2011
- Program Committee – AIS Student Chapter Conference 2010
- College PTAC – 2009-2010
- Mini-track Co-Chair, AMCIS 2009
- Reappointment committees - various
- Mini-track Co-Chair for Extended Enterprise Systems, AMCIS, 2008.
- Commencement Committee, University of Alabama in Huntsville, 2007 – 2009
- Information and Educational Technology Committee, University of Alabama in Huntsville, 2007 – 2009
- Program Committee, CIST, Informs, Seattle, 2008.
- Faculty Senator, University of Alabama in Huntsville, 2005 – 2007.
- University Judicial Board & PAO, University of Alabama in Huntsville, 2005 – 2007.
- University Finance and Resources Committee, University of Alabama in Huntsville, 2005 – present. MIS Graduate Curriculum Committee, College of Administrative Science, University of Alabama – Huntsville, 2004.
- MIS Undergraduate Curriculum Committee, College of Administrative Science, University of Alabama in Huntsville, 2004-2005
- MIS Graduate Curriculum Committee, College of Administrative Science, University of Alabama in Huntsville, 2004 - 2005.
- MIS Marketing Committee, College of Administrative Science, University of Alabama in Huntsville, 2004 - 2005.
- MIS Faculty Recruitment Committee, College of Administrative Science, University of Alabama in Huntsville, 2005.
- MBA 2005 Program Committee, Fox School of Business, Temple University 2003 – 2004.
  > Member of the School of Business committee for designing and formulating a new MBA curriculum for the school. Includes formulation and design of IT Management specialization track and additional courses for the program.
- Director of masters programs – MIS Department 2000 – 2002

Responsibility for graduate admissions, advising and curriculum for the department's MS programs.

Chair the graduate curriculum committee of the department.

- Review and overhaul of MIS curriculum (MBA/MS) 2002
  Chaired the committee for review and overhaul of MIS curriculum in the schools' MBA and MS programs.
- Course coordinator: Database management systems 1999–present
  Coordinate syllabus, text, and database for both undergraduate and graduate courses in database management.
  Transition of the courses from MS Access to Oracle.
  Coordinate with computing services for server management.
- Tutorials and Panel Coordinator for Diffusion Interest Group in Information Technology (DIGIT) Workshop 2003, Seattle, WA.
- Maintain the web site and list server for DIGIT  (http://www.mis.temple.edu/digit)
- Ad-Hoc Reviewer for the following journals and conferences
  - MIS Quarterly
  - Decision Sciences
  - Communications of ACM
  - Database
  - Journal of Electronic Commerce
  - Journal of Management Information Systems
  - Journal of Strategic Information Systems
  - Information Systems Research
  - International Journal of Electronic Commerce
  - Risk Insurance and Management
  - Americas Conference on Information Systems
  - Academy of Management
  - International Conference on Information Systems
- Mini-Track Co-Chair, "Supply Chain Management in the Digital Economy," *Americas Conference on Information Systems*, Dallas, TX, 2002.
- Mini-Track Co-Chair, "Outsourcing IT in the New Economy," *Americas Conference on Information Systems*, Boston, MA, 2001.

## V.     Honors, Awards, and Special Recognitions:
- Mark McDaniel, Henri McDaniel and Robert "Bud" Cramer Faculty Award, 2013 -2014.
- David C. Billings Faculty Fellowship, 2008, College of Business Administration, UAH, Huntsville.
- Witmondt Faculty Fellowship, 2006-2007, College of Administrative Sciences, University of Alabama in Huntsville.
- Best Paper Research Award 2005, College of Administrative Sciences, University of Alabama in Huntsville.
- Executive Directors Award, for Outstanding Commitment to Teaching (MBA/MS) 2002, Temple University.
- Faculty Leadership Award – MIS Department 2001, Temple University.
- Inducted as Honorary Faculty Member 2001, Beta chapter of Upsilon Pi Epsilon, Temple University.
- Teaching and Research Fellow 2000, Irwin L. Gross eBusiness Institute, Temple University.
- Chairman's Gold Medal 1998, Indian Institute of Management, India.