CYRIL S. KU, Ph.D.

Professor
Department of Computer Science
William Paterson University
300 Pompton Road, Wayne, NJ 07470, USA
kuc@wpunj.edu, (973) 720-2952
ORCID: https://orcid.org/0000-0001-6310-9597
WPU Web Page: https://wpconnect.wpunj.edu/directories/faculty/default.cfm?user=kuc
Data Science Research Lab: https://cs-cit.wpunj.edu/cs/Research/DSRL/

EDUCATION

Sep 1985 – Jun 1989 ***Doctor of Philosophy in Computer Science***
Northwestern University, Evanston, Illinois
Dissertation: *Incremental Compilation of Rules in Indefinite Deductive Databases*
Advisor: Dr. Lawrence J. Henschen
Awards: Research Assistantship and Teaching Assistantship

Jan 1980 – Jun 1982 ***Master of Science in Computer Science and Applications***
Virginia Polytechnic Institute and State University, Blacksburg, Virginia
Thesis: *The Design and Implementation of a Language Environment for Evaluating the Programming Task*
Advisor: Dr. Timothy E. Lindquist
Awards: Teaching Assistantship and Research Assistantship,
Upsilon Pi Epsilon Honor Society Membership

Sep 1976 – Dec 1979 ***Bachelor of Science in Computer Science (Cum Laude)***
Utah State University, Logan, Utah
Awards: Academic and University Scholarships,
Teaching Assistantship,
Senior Certificate of Alpha Lambda Delta Scholastic Honor Society,
Who's Who Among Students in American Universities and Colleges,
The National Dean's Lists

ACADEMIC EXPERIENCE

Sep 2002 – Present **William Paterson University (WPU),** Wayne, New Jersey
Professor – *Department of Computer Science* (Sep 2014 – Present)
Associate Professor – *Department of Computer Science* (Sep 2009 – Aug 2014)
Department Chair – *Department of Computer Science* (Jul 2007 – Jun 2013)
Assistant Professor – *Department of Computer Science* (Sep 2002 – Aug 2009, **Tenured:** Sep 2007)
Awards: Outstanding Partnership Award for Best Practices in Employer Relations, Career Development Advisory Board, WPU (May 6, 2011)
Upsilon Pi Epsilon Computer Science Honor Society Faculty Membership (Apr 22, 2010)
Faculty Excellence Award for Service, WPU (May 19, 2009)

Sep 1994 – Jul 2000 **New Jersey Institute of Technology,** Newark, New Jersey
Adjunct Professor – *Department of Computer and Information Science*

Sep 1985 – Jun 1989 **Northwestern University,** Evanston, Illinois
Teaching Assistant – *Department of Electrical Engineering and Computer Science* (1986 – 1989)
Lecturer – *Department of Electrical Engineering and Computer Science* (Jun 1988 – Aug 1988)
Research Assistant – *Department of Electrical Engineering and Computer Science* (Dec 1985 – Jun 1986): Research project titled *"Validation of Logical Stability Measures",* sponsored by

Rome Air Development Center through IIT Research Institute under contract F30602-83-C-0026 and subcontract A06097-1.

Jan 1980 – Jun 1982 **Virginia Polytechnic Institute and State University,** Blacksburg, Virginia

Research Assistant *– Department of Computer Science* (Jan 1981 – Jun 1982): Research project titled *"Human-Computer Interactions and Decision Behavior",* sponsored by Office of Naval Research under contract N00014-81-K-0143.

Teaching Assistant *– Department of Computer Science* (Jan 1980-Dec 1980)

Sep 1976 – Dec 1979 **Utah State University,** Logan, Utah

Teaching Assistant *– Department of Applied Statistics and Computer Science* (Jan 1979 – Dec 1979)

INDUSTRY EXPERIENCE

Jul 2000 – Jul 2002 **IBM,** Short Hills/Morristown, New Jersey

Award: Obtained the largest bonus award in the position of Senior I/T Specialist for achieving the highest (extraordinary) performance evaluation (Dec 2000)

Senior Information Technology Specialist *(IBM Global Services)*

Responsible for the design and implementation of enterprise architecture as it applied to corporation-wide executive information systems and decision support systems using the latest software engineering and data warehousing technologies.

Oct 1996 – Jun 2000 **AT&T,** Murray Hill/Short Hills, New Jersey

Awards: True Insighter Award – Award for Outstanding Achievement (Sep 1999)
Admiral's Club Award – Certificate of Recognition (Feb 1998)

Senior Technical Staff Member – *Data Mart/Data Mining District (Insight Division)*

Responsible for researching and applying data warehouses, multidimensional databases, and online analytical processing systems.

Jul 1989 – Sep 1996 **Bellcore (Bell Communications Research, now Ericsson),** Morristown/Piscataway, New Jersey

Awards: Recognition Awards (Nov 1993, Mar 1995, April 1995)
Vice Presidential Fund Awards (Oct 1993, Feb 1994)
Team Appreciation Award (May 1995); Team Recognition Award (April 1994)

Systems Analyst – *Network Capacity Management Systems Laboratory (Software Systems Area)* (Jan 1995 – Sep 1996)

TMM (Technology Management Module): TMM was an engineering planning, design, and inventory system. The project involved the specifications and design of new TMM features of various telecommunications network management functions including Broad Band technology and SONET architecture.

CID (Catalog Item Database) and SAM (Sub-Assembly Model): CID and SAM were two databases involved in the data flow between TMM and MOBE (Model Building Environment). The work included re-architecting the data models and improving data flows among CID, SAM, TMM, and MOBE applications. Extensive experience in the integration of various database architectures.

Member of Technical Staff – *Operations Solutions Laboratory (Technology Resources Area)* (Jan 1993 – Dec 1994)

Application Database and Corporate Database Interactions: Designed distributed architecture that defined the interaction between relational databases (CID and SAM) and object-oriented databases (LREF - Local Reference database in TMM) in a client/server environment. Re-designed logical data models between databases to maintain the integrity and consistency of data and to eliminate the redundancy of data.

Equipment Modeling: Responsible for modeling telecommunications equipment for various operations support systems. The work required diverse knowledge of telecommunications networks, telephony equipment, and broadband equipment.

Member of Technical Staff – *Network Capacity Provisioning Laboratory (Operations Tech. Area)* (Jan 1991 – Dec 1992)

ADEX (Application Data Exchange): ADEX was a software system that received data from one application and delivered it to one or many applications based upon pre-defined message mappings. The project involved the enhancements of the data transformation engine of ADEX.

Interface Translator: Initiated the work effort to build a generic interface tool to use data models from different applications in different CASE tools. Designed and implemented sets of software to successfully translate data from CID (Catalog Item Database), LOC (Location database), and UI (Unit Inventory database) in Bellcore propriety format into the format used by the IEF (Information Engineering Facility) CASE tool. Extensive experience with CASE tools such as Bachman, IEF, and StP (Software through Pictures).

Member of Technical Staff – *Planning and Engineering Applications Laboratory (Technology Applications Area)* (Jul 1989 – Dec 1990)

Data Architecture Team: Defined the business drivers and specified the data architecture for an inventory database. The research in this effort led to designing and implementing a corporate database (UI - Unit Inventory database) for the Bell operating companies.

WOAC (Work Order Activity Controller): Designed a software tool that consisted of an algorithm generator and an algorithm executor to perform control functions. The project included designing and implementing a prototype of the controller using ART (Automated Reasoning Tool).

Nov 1982 – Aug 1985 **Kessmann and Associates, Inc.,** Houston, Texas

Senior Software Systems Engineer *– Traffic and Transportation Control Systems*

Designed and implemented software and firmware systems for traffic and transportation applications. Involved in the analysis, design, and development of computerized traffic control systems for the following projects:

- Control Strategies and Detector Placement Guidelines for a 1.5 Generation Traffic Control System (Federal Highway Administration, U. S. Department of Transportation, Washington, D. C.)
- Laborsaving Methods for Improved Operation of Computer-Controlled Traffic Signal Systems (Federal Highway Administration, U. S. Department of Transportation, Washington, D. C.)
- The Integrated Motorist Information System (Sperry Systems Management, New York)
- The Buffalo Light Rail Rapid Transit System (Niagara Frontier Transportation Authority, New York)

GRANT / AWARD / RESEARCH CONSULTING

ACADEMIC GRANTS:

Jan 1, 2023 – Dec 31, 2025 ***Research Scientist*** for the Healthcare Approaches to Justice Collaborative (HCAJC) at Montclair State University (https://www.montclair.edu/chss/about-the-college/chss-initiatives/healthcare-approaches-to-justice-collaborative/). I am working for the HCAJC on a grant from the New Jersey Office of the Attorney General through a sub-award from Hackensack Meridian Health (Grant Number: GR00729). Research involves natural language processing, data & text mining, machine learning, databases, and big data analytics on patient/demographic data.

Apr 1, 2022 – Dec 31, 2022 ***Principal Investigator*** for a grant from the New Jersey Office of the Attorney General through a sub-award from Hackensack Meridian Health. Project Title: *"Evaluation for New Jersey Hospital-Based Violence Intervention Program (NJVIP) of Meridian Health".* Research involves natural language processing, data & text mining, and machine learning on hospital data. Award Amount: $149,501.00.

Apr 1, 2022 – Dec 31, 2022 ***Principal Investigator*** for a grant from the New Jersey Office of the Attorney General through a sub-award from Hackensack Meridian Health. Project Title: *"Data Management for New Jersey Hospital-Based Violence Intervention Program (NJVIP) of Meridian Health".* Research involves data management, data science, and big data analytics on hospital data. Award Amount: $149,663.00.

Oct 1, 2020 – Sep 30, 2025 ***Co-Principal Investigator*** for NSF 20-526 (S-STEM: Scholarships in Science, Technology, Engineering, and Mathematics. Award Number: 2028011. Award Amount: $1,000,000.00). Project Title: *"Support Undergraduate Mathematics and Computer Science Students with Scholarships and Culturally Responsive Mentoring".* Recruit, mentor, and supervise research for Mathematics and Computer Science (MaCS) Scholars to support the retention and graduation of low-income and talented STEM students. https://www.wpunj.edu/cosh/macs-scholars-program/

2015 – 2019 ***Collaborator*** for the NSF *NECST (Networking and Engaging in Computer Science and Information Technology)* in the Northern New Jersey scholarship program with Montclair State University (MSU). Awarded $40,000.00 from NSF over 3 years for scholarships and related activities for William Paterson University students to attend a graduate program in the Department of Computer Science at MSU. (Participating universities also included Saint Peter's University and Seton Hall University. NSF grant of $624,542.00 was awarded for this program. Award Number: 1259758). No-cost extension in 2018 – 2019.

NSF AWARD:

Jul 20, 2023 – Present ***Principal Investigator*** for the NSF's ACCESS (Advanced Cyberinfrastructure Coordination Ecosystem: Services & Support) Program. Award Number: CIS230163. Approved Credits: 750,000. Project Title: *"High-Performance Computing Capability for the Data Science Research Lab at William Paterson University".* Use supercomputing facilities around the USA for machine learning, data & text mining, natural language processing, big-data analytics, and data science applications.

INDUSTRY GRANTS:

2019 – 2024 Awarded $10,000.00 from UPS Foundation of UPS for the *UPS Computer Information Technology Lecture Series* for the Computer Science Department at WPU (Second Award).

2014 – 2019 Awarded $10,000.00 from UPS Foundation of UPS for the *UPS Computer Information Technology Lecture Series* for the Computer Science Department at WPU (First Award).

Summer 2015 Awarded $20,000.00 from PSEG for the *PSEG Pre-College STEM High Summer Program* at WPU (Collaborated with Institutional Advancement and Center for Continuing and Professional Education). Developed and taught a new course "Virtual World" for this program.

Jun 2008 Awarded $16,914.10 Equipment Grant from the Provost's Office at WPU and $15,080.90 from Sun Microsystems Educational Matching Grant to purchase a Sun SPARC Enterprise T5220 Solaris Unix Server (8 core 1.2 GHz UltraSparc T2 processor, listed price: $31,995.00) for the Computer Science Department at WPU.

RESEARCH CONSULTING:

Sep 2022 – Sep 2023 ***Consultant/Technical Advisor*** for Dr. Sheetal Ranjan's sub-award ($233,049) in the Department of Justice Studies & Sociology at Montclair State University: *"New Jersey Hospital-Based Violence Intervention Program at Jersey Shore Medical University".* Project Director: Ramon Solhkhah, New Jersey Office of the Attorney General. ($1,428,571). Research involves natural language processing, data & text mining, and machine learning.

May 2021 – Mar 2022 ***Consultant/Technical Advisor*** for Dr. Sheetal Ranjan's sub-award ($592,539) in the Department of Justice Studies & Sociology at Montclair State University: *"New Jersey Hospital-Based Violence Intervention Program at Jersey Shore Medical University"*. Project Director: Aakash Shah, New Jersey Office of the Attorney General. ($2,500,000). Research involves data management, data science, and big data analytics.

WPU FACULTY-STUDENT RESEARCH AWARDS:

Spring 2024 *The Applications of Data and Text Mining Algorithms using Supercomputer (Anvil at Purdue University),* Research Assistants: Elisa Zuta and Justin Duke Itter, Research supported by College of Science and Health Student Research Fund: $1,695.60

Fall 2023 *Sentiment Analysis Using Large Language Models,* Research Assistant: Elisa Zuta, Research supported by College of Science and Health Student Research Fund: $1,695.60

Summer 2023 *Sentiment Analyses on Social Media Data,* Research Assistant: Elisa Zuta (MaCS Scholar – Summer Research Internship), Research supported by the National Science Foundation under NSF Grant #2028011: $1,350.00

Spring, 2023 *Text-Mining on Healthcare Data,* Research Assistant: Elisa Zuta, Research supported by College of Science and Health Student Research Fund: $1,695.50

Fall 2022 *Data Mining Tools and Programs Performance,* Research Assistant: Sean Michael Gould, Research supported by College of Science and Health Student Research Fund: $1,560.00

Spring, Summer 2022 *Social Media Data Analytics,* Research Assistants: Alan Gilberto Castaneda and Brandon William Cay, Research supported by the College of Science and Health Student Research Fund: $1,560.00 (Spring 2022). Research supported by the Department of Computer Science Departmental Fund: $2,040.00 (Summer 2022)

Fall 2021 *Big Data Analytics on Social Media Data,* Research Assistant: Anna Renee Chieco (MaCS Scholar), Research supported by College of Science and Health Student Research Fund: $1,440.00

Summer 2021 *Big Data Analytics on Social Media Data: A Social Media Data Acquisition Tool,* Research Assistant: Anna Renee Chieco (MaCS Scholar – Summer Research Internship), Research supported by the National Science Foundation under NSF Grant #2028011: $1,200.00

Fall 2019 *Data Mining on YRBS (Youth Risk Behavior Survey) Data,* Research Assistant: Anna G. Sand, College of Science and Health Student Research Fund: $1,200.00

2018 – 2019 *A Knowledge Discovery Approach to Mental Health Problems in New York City,* Research Assistant: Sara Marianna Steinel, College of Science and Health Student Research Fund: $1,032.00 (Spring 2018), $1,032.00 (Fall 2018), $1,062.00 (Spring 2019)

Fall 2017 *Data Mining on YRBS (Youth Risk Behavior Survey) Data,* Research Assistants: Caroline Ruiz Nunez and Sara Marianna Steinel, College of Science and Health Student Research Fund: $1,012.80

2016 – 2017 *Data Analytics for YRBS (Youth Risk Behavior Survey) Data using Artificial Intelligence Techniques,* Research Assistant: Ana Katrina Ocampo, College of Science and Health Student Research Fund: $1,005.60 (Fall 2016), $1,012.80 (Spring 2017)

Fall 2016 *Computational Chemistry of Non-rigid Molecules,* Research Assistants: Joseph Candela and Tony Zheng, College of Science and Health Student Research Fund: $1,005.60

2015 – 2016 *Data Extraction and Analytics for YRBS (Youth Risk Behavior Survey) Data,* Research Assistant: Ana Katrina Ocampo, College of Science and Health Student Research Fund: $1,005.60 (Fall 2015), $1,005.60 (Spring 2016)

2014 – 2015 *Multi-Dimensional Unified Process,* Research Assistant: Kenneth J. Fleischer, College of Science and Health Student Research Fund: $768.00 (Fall 2014), $896.00 (Spring 2015)

Spring 2014 *Finch Robot Programming,* Research Assistant: Jordan E. Matos, College of Science and Health Student Research Fund: $500.00

Fall 2013 *Collaborative Software Engineering Research,* Research Assistant: Michael Moschovas, College of Science and Health Student Research Fund: $768.00

2012 – 2013 *Performance Analyses of Digital Signal Processing Algorithms in a Multi-Core Environment,* Research Assistant: Beata Zaluska, College of Science and Health Student Research Fund: $1,040.00 (Spring 2012), $1,152.00 (Fall 2012), $1,120.00 (Spring 2013); WPU Student Undergraduate Research Program: $500.00

Spring, Summer, Fall 2011 *Performance Analyses of Digital Signal Processing Algorithms in a Multi-Core Environment,* Research Assistant: Brian Foulds, College of Science and Health Student Research Fund: $2,080.00

Fall 2009 *Pre- and Post-Semester Course Analyses and the Enhancement of the Computer Science Department ABET Website,* Student Assistant: Steve Seok-Min Bang, College of Science and Health Student Worker Fund: $960.00

Spring 2009 *Pre- and Post-Semester Course Surveys and Analyses,* Student Assistant: Steve Seok-Min Bang, College of Science and Health Student Worker Fund: $1,200.00

Fall 2008 *Software Metrics for Digital Signal Processing Benchmark Programs,* Research Assistant: Ace Flores, College of Science and Health Student Research Fund: $1,200.00

Summer 2008 *Digital Signal Processing Research,* Research Assistant: Bekim Abazoski, College of Science and Health Student Research Funds: $1,200.00; WPU Student Undergraduate Research Program: $500.00

Fall 2007 *Research and Development of the Computer Science Department Website,* Research Assistant: Brian Publik, College of Science and Health Student Worker Fund: $1,200.00

Fall 2006 *Application of Gang-of-Four Design Patterns to Relational Databases,* Research Assistant: Philip K. Kang, College of Science and Health Student Research Fund: $1,200.00

2005 – 2006 *Application of Generic Software Design Patterns to Database Development,* Research Assistant: Nathan M. Mantell, College of Science and Health Student Research Fund: $1,200.00

Spring 2005 *Design Patterns Development in Software Engineering and Databases,* Research Assistant: Tatyana Budanskaya, College of Science and Health Student Research Fund: $720.00

WPU ASSIGNED RELEASE TIME (ART) FOR RESEARCH:

2019 – 2020 *Data Mining on YRBS (Youth Risk Behavior Survey) Data,* ART Award: 6 Credits

2017 – 2019 *Computer Science Applications in Combinatorial Enumeration of Chemical Structures,* ART Award: 12 Credits

2015 – 2017 *The Multi-Dimensional Unified Process,* ART Award: 12 Credits

2013 – 2015 *The Multi-Dimensional Unified Process for Collaborative Software Development,* ART Award: 12 Credits

2011 – 2013 *Collaborative Software Engineering Models,* ART Award: 12 Credits

2010 – 2011 *The Complexity of DSP Benchmark Functions in Multi-Core Environment,* ART Award: 6 Credits

Spring 2010 The Continuation of the Writing of a Textbook titled *"Software Engineering: Traditional and Object-Oriented Approaches,"* ART Award: 3 Credits

Spring 2009 Complete the Writing of a Textbook titled *"Software Engineering: Traditional and Object-Oriented Approaches,"* ART Award: 3 Credits

Fall 2007 *Calibration of Benchmark Functions using Static and Dynamic Program Complexities,* ART Award: 3 Credits

Fall 2006 *Development of Design Patterns for Relational Databases,* ART Award: 3 Credits

Spring 2006 *Generic Software Engineering Design Patterns for Databases and Data Warehouses,* ART Award: 3 Credits

Spring 2005 *Automatic Code Generation for Deductive Object-Oriented Systems,* ART Award: 3 Credits

Fall 2003 *Software Engineering Issues in Data Warehousing Architecture,* ART Award: 3 Credits

Spring 2003 *Query Capabilities and Evaluation in Multi-Dimensional Databases within the Context of an Enterprise Data Warehousing Architecture,* Provost's First Year Release Time Program Award: 3 Credits

WPU SUMMER RESEARCH AWARDS:

Summer 2006 *Design Patterns for Relational Databases,* Research Assistant: Philip K. Kang, CfR (Center for Research) Award: $4,960.00

Summer 2005 *Design Patterns Across Software Engineering and Databases,* Research Assistant: Nathan M. Mantell, CfR (Center for Research) Award: $4,960.00

Summer 2004 *Modeling Deductive Object-Oriented Systems with UML,* Research Assistant: Gregory M. Brooks, CfR (Center for Research) Award: $2,625.00

Summer 2003 *Total Query Optimization Strategies in On-Line Analytical Processing Systems,* Research Assistant: Yu H. Zhou, CfR (Center for Research) Award: $4,480.00

SCHOLARLY ACTIVITY

PANELISTS:

2021, 2022 ***NSF (National Science Foundation) Panelists***

2015 – 2023 ***ASEE Panelist for SMART Scholarship Program:*** Evaluation Panelist for ASEE's (American Society for Engineering Education) Science, Mathematics, and Research for Transformation (SMART) Program (Part of the National Defense Education Program), Washington, DC, USA

EDITORIAL BOARD:

2023 – 2024 ***Associate Editor*** *for* ***Cybernetics and Systems,*** an international journal of the Taylor & Francis Group

2017 ***Member of Editorial Advisory Board*** for *"Philosophical Perceptions on Logic and Order"* by Jeremy Horne, IGI Global (International Publisher of Information Science and Technology Research), ISBN13: 9781522524434, ISBN10: 1522524436

EXTERNAL PROGRAM EVALUATOR:

April 21, 2017 ***External Evaluator*** for the Software Technology Program in the School of Engineering Technology at SUNY (State University of New York) Farmingdale State College

INTER-DISCIPLINARY APPOINTMENTS:

2018 – Present: Join appointment with the Master Program in Applied Business Analytics in the Department of Marketing and Management Sciences, Cotsakos College of Business, William Paterson University

2012 – Present: Join appointment with the Linguistics Minor program in the Department of Languages & Cultures, College of Humanities and Social Sciences, William Paterson University

COMPUTER SCIENCE ADVISORY BOARDS:

2013 – 2020: ***Member of the Advisory Board*** for the Computer Science program in the Department of Mathematics and Computer Science, Seton Hall University

2008 – 2013, 2016 – 2017: ***Member of the Advisory Board*** for the Computer Science program of the ITT/Cisco Academy at the Bergen County Technical High School's Teterboro campus

MEDIA APPEARANCE:

July 22, 2012: *"The IT Experts Have It: Computer Science Grads are in Demand,"* interviewed by Guy Kipp, Fall Education section, *The Star-Ledger*

GRANT EVALUATOR:

2007 – 2010: ***Member of the External Expert Committee*** in the Computer Science Panel of the Research Foundation of CUNY (City University of New York)

KEYNOTE SPEAKER / CONFERENCE CHAIR:

September 14, 2023: ***Plenary Keynote Address:*** The Ethics of Artificial Intelligence in the Era of Generative AI. *The 27th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2023,* IIIS (International Institute of Informatics and Systemics), Virtual Conference. Address delivered by Joseph R. Laracy. Content contributed by Joseph R. Laracy, Thomas J. Marlowe, Cyril S. Ku, & Vassilka D. Kirova

December 11, 2018: ***Keynote Speaker and Panelist:*** Big Data, Analytics, and Artificial Intelligence. *Data Science Symposium (Emerging Trends in Data Science), Cotsakos College of Business, William Paterson University,* Wayne, New Jersey, USA.

July 17-20, 2012: ***Session Co-Chair*** and Program Committee: *The 2nd International Symposium on Collaborative Enterprises (CENT 2012),* Orlando, Florida, USA.

March 17-19, 1994: ***Session Chair:*** *The ISCA (International Society for Computers and their Applications) International Conference on Computers and their Applications – Databases Session,* Long Beach, California, USA.

CONFERENCE PROGRAM COMMITTEES:

Jul 16-18, 2024: *The 9th IEEE/ACIS International Conference on Big Data, Cloud Computing, and Data Science Engineering (BCD 2024-Summer),* Kitakyushu, Japan

Dec 14-16, 2023: *The 8th IEEE/ACIS International Conference on Big Data, Cloud Computing, and Data Science Engineering (BCD 2023),* Ho Chi Minh City, Vietnam

Jul 14-16, 2023: *The 3rd ACIS International Conference of Artificial Intelligence (IAI-2023),* London, UK

Jul 5-7, 2023: *The 25th IEEE/ACIS International Summer Conference on Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing (SNPD2023-Summer),* Taiyuan, China

Aug 4-6, 2022	*The 7th IEEE/ACIS International Conference on Big Data, Cloud Computing, and Data Science Engineering (BCD 2022),* Danang, Vietnam
Oct 13-15, 2021	*IEEE/ACIS 21st International Fall Conference on Computer and Information Science (ICIS 2021-Fall),* Xi'an, China
Sep 13-15, 2021	*The 6th IEEE/ACIS International Semi-Virtual Conference on Big Data, Cloud Computing, and Data Science Engineering (BCD 2021),* Zhuhai, China
Jun 23-25, 2021	*IEEE/ACIS 20th International Summer Semi-Virtual Conference on Computer and Information Science (ICIS 2021-Summer),* Shanghai, China
May 29-31, 2019	*The 17th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA 2019),* Honolulu, Hawaii, USA
Jun 13-15, 2018	*The 16th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA 2018),* Kunming, China
Jun 7-9, 2017	*The 15th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA 2017),* University of Greenwich, London, United Kingdom
Jun 8-10, 2016	*The 14th IEEE/ACIS International Conference on Software Engineering Research, Management and Applications (SERA 2016),* Towson, Maryland, USA
Mar 25-27, 2015	*The 29th IEEE International Conference on Advanced Information Networking and Applications (AINA-2015),* Gwangju, Korea
Aug 4-6, 2014	*International C* Conference on Computer Science & Software Engineering (C^3S^2E'14),* Concordia University, Montreal, Canada
Jun 4-6, 2014	*The 13th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2014),* Taiyuan, China
Jul 10-12, 2013	*International C* Conference on Computer Science & Software Engineering (C^3S^2E'13),* Porto, Portugal
Jun 16-20, 2013	*The 12th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2013),* Toki Messe, Niigata, Japan
Jun 27-29, 2012	*International C* Conference on Computer Science & Software Engineering (C^3S^2E'12),* Montreal, QC, Canada
May 30-Jun 1, 2012	*The 11th IEEE/ACIS International Conference on Computer and Information Science (ICIS 2012),* Shanghai, China
Oct 23-28, 2011	*The Sixth International Conference on Software Engineering Advances (ICSEA 2011),* Barcelona, Spain
Aug 10-12, 2011	*The 9th ACIS International Conference on Software Engineering Research, Management and Applications (SERA2011),* Baltimore, Maryland, USA
May 16-18, 2011	*The Fourth International C* Conference on Computer Science & Software Engineering (C^3S^2E'11),* Montreal, QC, Canada
May 24-26,	*The 8th IEEE/ACIS International Conference on Software Engineering Research, Management and*

2010 *Applications (SERA2010),* Montreal, Canada

Dec 2-4, 2009 *The 7th ACIS International Conference on Software Engineering Research, Management and Applications (SERA2009),* Haikow, Hainan Island, China

Jun 22-24, 2009 *ISCA 18th International Conference on Software Engineering and Data Engineering (SEDE-2009),* Las Vegas, Nevada, USA

Jun 30- Jul 2, 2008 *The 17th International Conference on Software Engineering and Data Engineering (SEDE-2008),* Los Angeles, California, USA

Jul 9-11, 2007 *The 16th International Conference on Software Engineering and Data Engineering (SEDE-2007),* Las Vegas, Nevada, USA

Jun 25-28, 2007 *The 2007 International Conference on Software Engineering Research and Practice (SERP'07),* Las Vegas, Nevada, USA

Jun 26-29, 2006 *The 2006 International Conference on Software Engineering Research and Practice (SERP'06),* Las Vegas, Nevada, USA

May 20-28, 2006 *The Third International Workshop on Software Development Methodologies of Distributed Systems (SDM-DS 2006),* Shanghai, China

Jun 27-30, 2005 *The 2005 International Conference on Software Engineering Research and Practice (SERP'05),* Las Vegas, Nevada, USA

Jun 22-23, 2005 *The Second International Workshop on Software Development Methodologies of Distributed Systems (SDM-DS 2005),* Wuxi, China

Jun 21-24, 2004 *The 2004 International Conference on Software Engineering Research and Practice (SERP'04),* Las Vegas, Nevada, USA

Apr 16-18, 2001 *International Workshop on Mining Spatial and Temporal Data, The Fifth Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD-01),* Kowloon, Hong Kong

Mar 10-12, 1993 *The ISMM (International Society for Mini and Microcomputers) International Conference on Computer Applications in Design, Simulation, and Analysis,* George Washington University, Washington, D. C., USA

WPU HONORS COLLEGE THESIS SUPERVISION:

2018 – 2019 Sara Marianna Steinel, *Comparing Data Analysis Approaches: Hypothesis Driven and Knowledge Discovery,* ***Co-advisors:*** David M. Freestone, Cyril S. Ku, and Amy Learmonth, Department of Psychology (Cognitive Science Honors Track), William Paterson University. Thesis date: May 2019

2013 – 2014 Daniel J. Molczyk, *ELPH: Prototype Therapy Chatbot for Subclinical Stress in College Students,* ***Co-advisors:*** Cyril S. Ku and Amy Learmonth, Department of Psychology (Cognitive Science Honors Track), William Paterson University. Thesis date: May 2014

2012 – 2013 John G. Fromholtz, *Distributed Server System Modeled on Formicidae Behaviors and Structured Peer-to-Peer Network Architecture,* ***Co-advisors:*** Cyril S. Ku and Amy Learmonth, Department of Psychology (Cognitive Science Honors Track), William Paterson University. Thesis date: May 2013

2012 – 2013 William Andrew Landon, *Discrete Trial Teaching Program for Autism Students,* ***Co-advisors:*** Cyril S. Ku, Amy Learmonth, Department of Psychology (Cognitive Science Honors Track), William Paterson University. Thesis date: May 2013

MASTER THESIS/PROJECT SUPERVISION:

1999 – 2000 Diana H. O'Connell, *The Design and Implementation of Element Management Systems,* Department of Computer and Information Science, New Jersey Institute of Technology. Thesis date: March 2000

1998 Ameetha Sankaranarayanan, *Win/Loss Data Mart: Outbound Service Migration,* Department of Computer and Information Science, New Jersey Institute of Technology. Thesis date: December 1998

1996 – 1997 Corinne Gilfillan, *A Methodology to Transform an Extended Entity-Relationship Model into an Object-Oriented Entity-Relationship Model*, Department of Computer and Information Science, New Jersey Institute of Technology. Thesis date: June 1997

1995 – 1996 Shiowyng Gea, *Concurrency Control in a Distributed Environment*, Department of Computer and Information Science, New Jersey Institute of Technology. Thesis date: June 1996

1988 – 1989 Hee-Woon Yum, *An Incremental Compiler for an Indefinite Deductive Database,* Department of Electrical Engineering and Computer Science, Northwestern University. Thesis date: May 1, 1989

INDEPENDENT STUDY (CS 4990) SUPERVISION:

Spring 2019 Sara Marianna Steinel, *A Knowledge Discovery Approach to Mental Health Problems in New York City,* 3 Credits, Department of Computer Science, William Paterson University

Spring 2017 Ana Katrina Ocampo, *Big Data Analytics using Artificial Intelligence and Data Mining Methodologies,* 3 Credits, Department of Computer Science, William Paterson University

INTERNSHIP (CS 4950) SUPERVISION:

Summer 2018 Sara Marianna Steinel, *Data Link Communications between Military Platforms,* BAE Systems, 150 Parish Drive, Wayne, New Jersey 07474. Credit entered: Fall 2018

Spring 2014 Christine M. Potenza, *Enterprise Information Systems Student Position,* Information Technology, William Paterson University

JOURNAL REVIEWER:

1994 – 1997 *The Journal of Systems Integration,* Kluwer Academic Publishers

PROFESSIONAL MEMBERSHIPS:

1979 – Present Association for Computing Machinery (ACM)

1980 – Present Institute of Electrical and Electronics Engineers (IEEE) Computer Society

April 22, 2010 Upsilon Pi Epsilon (UPE) Computer Science Honor Society Faculty Membership

May 8, 1981 Upsilon Pi Epsilon (UPE) Computer Science Honor Society Student Membership

SCHOLARLY ACTIVITY AWARDS:

Jun 2022 Career Development Funds, Office of the Provost, WPU: $470.00

Jun 2005 Career Development Funds, Office of the Provost, WPU: $837.00

Jun 2004 Career Development Funds, Office of the Provost, WPU: $885.00

OTHER SCHOLARLY ACTIVITIES:

Feb 2023 ***External Reviewer*** for Dr. Ziyuan Meng for tenure decision in terms of scholarship in the Mathematics & Computer Science Department, Drew University, Madison, New Jersey.

Jul 2019 ***External Reviewer*** for Dr. Joseph L. Fera for promotion to Associate Professor with tenure in the Department of Mathematics, Lehman College, City University of New York.

Jan 2017 ***External Reviewer*** for Full Professor promotion for Dr. Qinghai Gao in the Department of Security Systems & Law Enforcement Technology, School of Engineering Technologies, Farmingdale State College, State University of New York.

2012-2013 Hosted Dr. Thomas J. Marlowe (Department of Mathematics and Computer Science, Seton Hall University) in the Department of Computer Science at WPU while he was on sabbatical leave from Seton Hall University.

UNIVERSITY / COLLEGE / DEPARTMENTAL SERVICE

WPU UNIVERSITY SERVICES:

Sept 30, 2021 Faculty reviewer for the new William Paterson University Brand Advertising, Marketing and Public Relations Department

2018 – Present NCWIT (National Center for Women & Information Technology) Higher Ed Alliance Member Representative for William Paterson University

2017 – 2018 Presidential Search Committee for the Eighth President of William Paterson University

2017 – 2019 Member of Research & Scholarship Council (Faculty Senate)

2014 – 2016 Member of Technology Council (Faculty Senate)

Summer 2014 Search Committee for Professional Academic Advisor (Gloria S. Williams Advisement Center)

2012 – 2013 Strategic Plan Committee for David and Lorraine Cheng Library of William Paterson University

2011 – 2012 Search Committee for Chief Information Officer (CIO of William Paterson University)

Jun-Jul 2011 Search Committee for Academic Advisor/Career Counselor (Career Development and Gloria S. Williams Advisement Center)

Spring-Fall 2010 Search Committee for Associate Director (Office of Institutional Research and Assessment)

May 2010 Selection Committee for Faculty Excellence Awards in Scholarship/Creative Activity, Teaching, and Service

Spring 2010 Member of GS-LSAMP (Garden State – Louis Stokes Alliance for Minority Participation) Campus Advisory Committee

2009-2011, 2013-2015 Senator for the Faculty Senate

2008 – 2018 Advisory Board for the Career Development and Gloria S. Williams Advisement Center

2007 – 2008 Academic Plan Committee (Provost Office)

July 2007 Committee to explore the feasibility of developing a Master of Library Science degree program

Spring 2007 Search Committee for Proposal Development Specialist (Office of Sponsored Programs)

2005 – Present Information Technology Advisory Committee

WPU COLLEGE OF SCIENCE AND HEALTH SERVICES:

2020 – Present Web Liaison for all the departments in the College of Science and Health, and William Paterson University web services

2019 – 2021 Member of CfR (Center for Research) Advisory Committee, representing the Department of Computer Science

Spring 2016 Faculty Range Adjustment Committee for Dr. Kevin Martus (Department of Physics)

2015 – 2017 Faculty Mentor for new faculty (2015 – 2016: Dr. Aleksandar Kecojevic – Department of Public Health, 2016 – 2017: Dr. David Hack – Department of Kinesiology)

2014 – 2015 Search Committee for a tenure-track faculty position (Department of Public Health)

March 15, 2012 Organizing Committee for the Alumni Association's Distinguished Professorship Lecture Series: *New Frontiers of Nanotechnology: Changing the Future of Everything*

2005 – 2008 Committee member for the new Science Hall building

2003 – 2004 Technology Committee

WPU COMPUTER SCIENCE DEPARTMENT SERVICES:

2022 – 2024 Retention and Tenure Committee

2023 – 2024 Promotion Committee

2020 – 2021 UPE Induction Organization Committee

2017 – Present Founder of the Data Science Research Lab in the Department of Computer Science at WPU (https://cs-cit.wpunj.edu/cs/Research/DSRL/)

2015 – 2024 Department Council

2014 – 2024 Coordinator for the UPS Computer Information Technology Lecture Series (the Lecture Series was made possible by a generous grant from the UPS Foundation of UPS)

2013 – 2024 Teaching Scheduling Committee

2009-2017, 2018-2024 Department Assessment Committee (DAC) for Tenured Faculty

2009 – Present Coordinator of the Advisory Board for the Computer Science Department at WPU

2008 – 2013 Computer Science Advisory Board (Ex-Officio)

2007 – Present Web Master

2007 – 2013 ***Department Chairperson:*** Elected as the Chair of the Computer Science Department for two consecutive terms. During six years, the Computer Science Department at WPU:

- Launched a new minor in CIS (Computer Information Systems) in the Fall of 2007.
- Obtained the first ABET accreditation for the Computer Science program at WPU (accredited in the summer of 2008, retroactively on 10/1/2006).
- The total computer science student enrollment increased by 80.3% from Fall 2008 (117 students) to Fall 2013 (211 students).
- Created a new major: B.S. in CIT (Computer Information Technology).
- Established an Advisory Board, consisting of academic and industry leaders in the computing community for the CS Department.
- Revised and enhanced many courses and curricula, added network-centric and security courses, and included technology-intensive and writing-intensive materials to satisfy WPU University Core Curriculum requirements.
- Active in inter-disciplinary collaboration with the Cognitive Science Program at the Honors College in the Psychology Department and the Linguistic minor in the Languages and Cultures Department.
- Opened a pipeline of internships and employment opportunities with UPS Information Services for our students.

2007 – 2010 ABET Accreditation Ad Hoc Committee

2006 – 2008, 2016 – 2020 Assessment Committee

2004 – 2007, 2013 – 2017 Technology across the Curriculum (TAC) Committee (Elected as Chair of TAC: 2006 – 2007)

2004 – 2005, 2013 – 2024 Faculty Recruitment Committee

2003 – Present Curriculum Committee (Ex-Officio, 2007 – 2013)

2003 – Present Election Committee

2003 – Present Academic Advisor

2002 – 2003 Program Review Committee

WPU SERVICE AWARDS:

May 6, 2011 Outstanding Partnership Award for Best Practices in Employer Relations, presented by the Career Development and Gloria S. Williams Advisement Center

May 19, 2009 Faculty Excellence Award for Service: $500.00

PUBLICATION

REFEREED JOURNALS:

1. Kirova, V. D., Ku, C. S., Laracy, J. R., Marlowe, T. J. (2023). The Ethics of Artificial Intelligence in the Era of Generative AI. *Journal of Systemics, Cybernetics and Informatics*, 21(4), 42-50. https://doi.org/10.54808/JSCI.21.04.42

2. Basch, C. H., Hillyer, G. C., Kecojevic, A., Ku, C. S., & Basch, C. E. (2019, May 29). Indoor Tanning and Poor Mental Health among Adolescents in New York City (2015). *Journal of Health Psychology*. https://doi.org/10.1177/1359105319852668

3. Kirova, V. D., Marlowe, T. J., & Ku, C. S. (2015, December). Monitoring and Reducing Application Fragility through Traceability and Effective Regression Testing. *Genie Logiciel,* (115), 2-9.

4. Kirova, V. D., Marlowe, T. J., & Ku, C. S. (2013, December). Knowledge Engineering and Colored Traceability in Global Collaborative Software Enterprises. *Genie Logiciel*, (107), 39-46.

5. Jastroch, N., Ku, C. S., Marlowe, T. J., Kirova, V. D., Mohtashami, M., & Nousala, S. (2011). Inter-organizational Collaboration: Product, Knowledge and Risk. *Journal of Systemics, Cybernetics and Informatics*, *9*(5), 30-35. https://ssrn.com/abstract=1995000

6. Mohtashami, M., Marlowe, T. J., & Ku, C. S. (2011). Metrics are Needed for Collaborative Software Development. *Journal of Systemics, Cybernetics, and Informatics*, *9*(5), 41-47.

7. Hu, E. W., Ku, C. S., Russo, A. T., Su, B., & Wang, J. (2009). Performance Analysis of Digital Signal Processors using SMV Benchmark. *International Journal of Signal Processing*, *5*(3), 223-230. The same paper also appeared in the *International Journal of Electrical, Electronic and Communication Sciences,* 3(11), 1954-1961. Science Press, ISSN: 2517-9438. *World Academy of Science, Engineering and Technology International Journal of Electrical, Computer, Energetic, Electronic and Communication Engineering,* 3(11). *International Scholarly and Scientific Research & Innovation*, 3(11), 2068-2075.

8. Yoon, S. C. & Ku, C. S. (1998). Towards a Deductive Object-oriented System. *International journal of computers & applications*, Acta Press, 20(2), 68-73.

9. Yoon, S. C., Ku, C. S., & Henschen, L. J. (1996, December 1). Semantic Query Reformulation in Object-oriented Databases. *Microcomputer Applications*, *15*(3), 106-112.

10. Ku, C. S., Kim, H. D., & Henschen, L. J. (1994, October). An Efficient Indefiniteness Inference Scheme in Indefinite Deductive Databases. *IEEE Transactions on Knowledge and Data Engineering*, *6*(5), 713-722. https://doi.org/10.1109/69.317702

BOOK CHAPTERS:

1. Choi, J. A. & Ku, C. S. (2022, January). Identifying the Public's Changing Concerns during a Global Health Crisis: Text Mining and Comparative Analysis of Tweets during the COVID-19 Pandemic. In: Lee, R. (eds) *Software Engineering, Artificial Intelligence, Networking and Parallel/Distributed Computing.* SNPD 2021, Studies in Computational Intelligence, vol 1012, Springer, Cham, Switzerland. https://doi.org/10.1007/978-3-030-92317-4_11

2. Ku, C. S. (2009). Design Patterns. *Wiley Encyclopedia of Computer Science and Engineering.* Wah, B. W. (Editor), John Wiley & Sons, Inc., Volume 2, (pp. 928-935). ISBN 978-0-471-38393-2.

3. Lindquist, T. E., Ku, C. S., & Robinson, R. M. (1986). Integrated Tools for Program Construction. *Human-Computer Dialogue Design*. Ehrich, R. W., & Williges, R. C. (Editors), Elsevier Science Publishers B. V., Amsterdam, The Netherlands, Chapter 6, (pp. 215-239). ISBN 0-444-42567-5.

REFEREED CONFERENCE PAPERS / PRESENTATIONS:

1. Weiner, D. M., Ku, C. S., Peltier, M. R., & Wells, M. (2024, May 4-8). A Comparative Study of Systematic Review Between Domain Experts and Machine Using Natural Language Processing and Text Mining in Clinical Psychiatry. *APA (American Psychiatric Association) Annual Meeting,* New York City, New York, USA.

2. Kirova, V. D., Ku, C. S., Laracy, J. R., & Marlowe, T. J. (2024, March 22). Software Engineering Education Must Adapt and Evolve for an LLM Environment. *Proceedings of the 55th ACM Technical Symposium on Computer Science Education (SIGCSE 2024),* V. 1, (pp. 666-672). Portland, Oregon, USA. https://doi.org/10.1145/3626252.3630927

3. Ku, C. S., Peltier, M. R., Green, R., Wongchanapai, P., & Ranjan, S. (2024, March 20). Exploring the Spatial Relationship between Domestic Violence and Environmental Pollutants. *The 61st ACJS (Academy of Criminal Justice Sciences) Annual Meeting,* Chicago, Illinois, USA.

4. Choi, J. A. & Ku, C. S. (2023, November 17). What's in a Platform? Efficacy of Social Media Platforms for Influencer Endorsements. *NCA (National Communication Association) 109th Annual Convention: Freedom,* National Harbor, Maryland, USA.

5. Ku, C. S., Peltier, M. R., & Ranjan, S. (2023, November 16). Application of Text Mining for Systematic Reviews of Qualitative Research – A Case Study Using Hospital-based Violence Intervention Programs (HVIPs). *The 78th ASC (American Society of Criminology) Annual Meeting,* Philadelphia, Pennsylvania, USA.

6. Ku, C. S., Neudecker, C., & Ranjan, S. (2023, March 18). Healthcare Informatics–A Knowledge Discovery Approach. *ACJS (Academy of Criminal Justice Sciences) 60th Annual Meeting,* National Harbor, Maryland, USA.

7. Ku, C. S., Marlowe, T. J., Laracy, J. R., & Choi, J. A. (2022, July 12-15). A Cybernetics Perspective on Data Science: Macro and Micro Views. *Proceedings of the 26th World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI 2022),* (pp. 47-52), Orlando, Florida, USA. https://doi.org/10.54808/WMSCI2022.01.47

8. Choi, J. A., Kashyap, R., Ku, C. S., & Samuel, J. (2022, April 8). Re-examining Social Media Data: Reducing Bias and Disinformation in Natural Language Processing Systems. *The 51st Annual Northeast Decision Sciences Institute Conference (NEDSI 2022),* Newark, New Jersey, USA.

9. Choi, J. A. & Ku, C. S. (2021, November 18). Renewal and Transformation of Public Trust in the COVID-19 Era: Lessons from Digital Media. *NCA (National Communication Association) 107th Annual Convention: Renewal and Transformation,* Seattle, Washington, USA.

10. Herbert, K. G., Marlowe, T. J., Fails, J. A., Ku, C. S., Goedert, K. M., Hill, E., Goodey, N. M., & MacVeigh. D. T. (2017, June 25-28). The NECST Program – Networking and Engaging in Computer Science and Information Technology Program. *The 124th ASEE (American Society for Engineering Education) Annual Conference & Exposition,* Columbus, Ohio, USA.

11. Moghani, A., Najarian, J. P., Ku, C. S., Namazi, J., Xing, Y., & Foley, J. (2016, August 30-31). Combinatorial Computation Study on Non-rigid Molecule 2, 3, 6, 7, 10, 11-hexanitrotriphenylene. *The 19th Japan-Korea Joint Workshop on Algorithms and Computation (WAAC 2016),* Hakodate, Japan.

12. Marlowe, T. J., Kirova, V. D., Ku, C. S., & Mohtashami, M. (2013, November 16-19). A Strategy for Improving Curricular Coverage of Problem-Solving Through Emphasis on Requirements Analysis. *The DSI (Decision Sciences Institute) 2013 Proceedings of the 44th DSI Annual Meeting,* Baltimore, Maryland, USA.

13. Kirova, V. D., Marlowe, T. J., & Ku, C. S. (2013, November 4-6). Knowledge Management in Global Collaborative Software Enterprises: Knowledge Management and Colored Traceability. *25th International Conference on Software & Systems Engineering and their Applications,* Telecom ParisTech, Paris, France.

14. Jastroch, N., Ku, C. S., Marlowe, T. J., & Kirova, V. D. (2013, September 25-27). Integrated Infrastructures for Knowledge-Guided Software Evolution and Adaptation. *The 22nd ISCA International Conference on Software Engineering and Data Engineering (SEDE 2013),* (pp. 105-110). Los Angeles, California, USA. https://ssrn.com/abstract=2358590

15. Marlowe, T. J., Benham, J. W., Kirova, V. D., Ku, C. S., Nousala, S., & Jastroch, N. (2013, July 9-12). Introducing Requirements Acquisition and Analysis Through a Very Incompletely Specified Problem. *The 11th International Conference on Education and Information Systems, Technologies and Applications: EISTA 2013 (in the context of the 7th International Multi-Conference on Society, Cybernetics and Informatics: IMSCI 2013),* (pp. 270-275), Orlando, Florida, USA.

16. Marlowe, T. J., Kirova, V. D., Jastroch, N., & Ku, C. S. (2013, June 24-26). Information Flows and Risk Management in Innovation-driven, Collaborative Ventures. *IEEE International Conference in Technology and Innovation Management & 19th ICE Conference,* (pp. 1-11). the Hague, the Netherlands. https://doi.org/10.1109/ITMC.2013.7352678

17. Ku, C. S., Kirova, V. D., Marlowe, T. J., Jastroch, N. (2012, July 17-20). The Multi-dimensional Unified Process for Inter-Organizational Collaborative Software Development. *The 2nd International Symposium on Collaborative Enterprises: CENT 2012 – Collaborative Development and Engineering Driving Innovation; in the 16th World Multi-Conference on Systemics, Cybernetics and the complexity Informatics: WMSCI 2012,* Volume I, (pp. 264-266), Orlando, Florida, USA. ISBN-13: 978-1-936338-62-7.

18. Jastroch, N., Kirova, V. D., Ku, C. S., Mohtashami, M., Marlowe, T. J., & Nousala, S. (2011, July 19-22). Collaboration, Product and Knowledge. *International Symposium on Collaborative Enterprises: CENT 2011 – Platforms, Processes, and Practices Advancing the Enterprise 2.0; in the 15th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2011,* Orlando, Florida, USA. https://ssrn.com/abstract=1906622

19. Mohtashami, M., Ku, C. S., & Marlowe, T. J. (2011, July 19-22). Metrics are Needed for Collaborative Software Development. *International Symposium on Collaborative Enterprises: CENT 2011 – Platforms, Processes, and Practices Advancing the Enterprise 2.0; in the 15th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2011,* Orlando, Florida, USA.

20. Jastroch, N., Kirova, V. D., Ku, C. S., Marlowe, T. J., & Mohtashami, M. (2011, June 20-22). Adapting Business and Technical Processes for Collaborative Software Development. *Proceedings of the 17th International Conference on Concurrent Enterprising (ICE 2011),* (pp. 1-8). Aachen, Germany**.** INSPEC Accession Number**:** 12289921.

21. Jastroch, N., Kirova, V. D., Ku, C. S., Marlowe, T. J., & Mohtashami, M. (2010, December 7-9). Software Engineering must be Collaboration-Aware. *Proceedings of the 22nd International Conference on Software & Systems Engineering and their Applications (ICSSEA 2010),* Paris, France.

22. Ku, C. S. & Marlowe, T. J. (2010, June 29-July 2). Software Metrics for Collaborative Software Engineering Projects. *Invited Session on Collaborative Knowledge Management (CKM 2010), the 4th International Conference on Knowledge Generation, Communication and Management (KGCM 2010), Proceedings of the 14th World Multi-Conference on Systemics, Cybernetics and Informatics (WMSCI 2010),* IIIS (International Institute of Informatics and Systemics), Volume III, (pp. 7-12), Orlando, Florida, USA. ISBN 978-1-936338-00-9.

23. Ku, C. S., Marlowe, T. J., Budanskaya, T., & Kang, P. K. (2007, June 25-28). Software Engineering Design Patterns for Relational Databases. *Proceedings of the 2007 International Conference on Software Engineering Research and Practice (SERP'07),* CSREA Press, Volume II, (pp. 340-344), Las Vegas, Nevada, USA.

24. Ku, C. S., Marlowe, T. J., & Mantell, N. M. (2006, July 6-8). Design Patterns across Software Engineering and Relational Databases. *Proceedings of the 15th International Conference on Software Engineering and Data Engineering (SEDE-2006),* (pp. 271-274), Los Angeles, California, USA.

25. Hu, E. W., Ku, C. S., Russo, A. T., Su, B., & Wang, J. (2006, June 26-29). New DSP Benchmark based on Selectable Mode Vocoder (SMV). *Proceedings of the 2006 International Conference on Computer Design (CDES'06),* CSREA Press, (pp. 175-181), Las Vegas, Nevada, USA.

26. Ku, C. S., Yoon, S. C., & Brooks, G. M. (2005, June 20-23). An Efficient Design and Implementation of a Heterogeneous Deductive Object-Oriented Database System. *Proceedings of the 2005 International Conference on Information and Knowledge Engineering (IKE'05),* CSREA Press, (pp. 135-141), Las Vegas, Nevada, USA. ISBN 1-932415-81-5.

27. Marlowe, T. J., Ku, C. S., & Benham, J. W. (2005, February 23-27). Design Patterns for Database Pedagogy: A Proposal. *Proceedings of the 36th SIGCSE Technical Symposium on Computer Science Education (SIGCSE 2005), ACM SIGCSE Bulletin,* Vol. 37, No. 1, (pp. 48-52), St. Louis, Missouri, USA. ISBN 1-58113-997-7.

28. Im, S. H., Han, H. C., Youn, C., Ku, C. S., Cheon, S. W., & Kwon, K. C. (2004, September 19-22). Construction of an Effective Parallel Development Environment for Nuclear Power Plant Instrumentation and Control Software Systems. *Proceedings of the 4th American Nuclear Society International Topical Meeting on Nuclear Plant Instrumentation, Control and Human Machine Interface Technology (NPIC&HMIT 2004),* Columbus, Ohio, USA.

29. Ku, C. S. & Zhou, Y. H. (2004, June 21-24). Qualitative Evaluation Profiles of Data-Warehousing Systems. *Proceedings of the International Conference on Software Engineering Research and Practice (SERP'04),* CSREA Press, Volume II, (pp. 587-593), Las Vegas, Nevada, USA. ISBN 1-932415-29-7.

30. Ku, C. S. (2004, March 18-20). Qualitative Evaluation of Information Systems Using Kiviat Graphs. *Proceedings of the ISCA (International Society for Computers and Their Applications) 19th International Conference on Computers and Their Applications,* (pp. 122-126), Seattle, Washington, USA. ISBN 1-880843-50-1.

31. Yoon, S. C. & Ku, C. S. (1995, June 22-24). Semantic Query Processing in Deductive Object-Oriented Databases. *Proceedings of the Seventh International Conference on Software Engineering and Knowledge Engineering,* KSI, (pp. 358-365), Rockville, Maryland, USA. ISBN 0-9641699-2-4.

32. Ku, C. S., Kim, H. D., & Youn, C. (1994, March 17-19). Compilation of Non-Linear Recursive Formulas in Deductive Database using Graph Model. *Proceedings of the ISCA (International Society for Computers and their Applications) International Conference on Computers and their Applications*, (pp. 33-37), Long Beach, California, USA. ISBN 1-880843-08-0.

33. Youn, C. & Ku, C. S. (1993, March 10-12). An Approach to Compiling Non-Linear Recursive Formulas in Deductive Databases. *Proceedings of the ISCA (International Society for Computers and their Applications) International Conference on Computer Applications in Design, Simulation, and Analysis*, (pp. 169-172), Washington, D. C., USA. ISBN 1-880843-04-8.

34. Youn, C. & Ku, C. S. (1992, October 18-21). Data Migration. *Proceedings of the IEEE International Conference on Systems, Man, and Cybernetics,* Volume 2, (pp. 1255-1258), Chicago, Illinois, USA. IEEE Catalog Number 92CH3176-5.

35. Youn, C. & Ku, C. S. (1992, March 11-13). Handling Recursive Formulas with Repeated Variables in Deductive Databases. *Proceedings of the ISMM (International Society for Mini and Microcomputers) International Conference on Computer Applications in Design, Simulation, and Analysis*, (pp. 163-166), Orlando, Florida, USA. ISBN 1-880843-00-5.

36. Youn, C. & Ku, C. S. (1991, May 15). Transformation of Entity-Relationship Model into Object-Oriented Approach. *Proceedings of the BOOST (Bellcore Object-Oriented Systems Technology) Symposium*, (pp. 229-238), New Brunswick, New Jersey, USA. Bellcore Special Report SR-TSV-001975.

37. Ku, C. S., Youn, C., & Kim, H. J. (1991, March 19-21). An Object-Oriented Entity-Relationship Model. *Proceedings of the ISMM (International Society for Mini and Microcomputers) International Conference on Computer Applications in Design, Simulation, and Analysis*, ACTA Press, (pp. 55-58), Las Vegas, Nevada, USA. ISBN 0-88986-180-3.

TECHNICAL REPORTS:

1. Ku, C. S. & Marlowe, T. J. (2006, April). Qualitative Kiviat Graphs for System Optimization *College of Science and Health – Center for Research Technical Report No. 152,* William Paterson University.

2. Ku, C. S. & Zhou, Y. H. (2003, October 21). Total Optimization Strategies in Data-Warehousing Systems. *College of Science and Health – Center for Research Technical Report No. 149,* William Paterson University.

3. Ku, C. S. (2003, September 8). Query Capabilities and Evaluation in Multi-Dimensional Databases within the Context of an Enterprise Data Warehousing Architecture. *College of Science and Health – Center for Research Technical Report No. 147,* William Paterson University.

4. Ku, C. S. (1996, September 6). CID/SAM/MOBE Data Requirements for the Generic Fiber Splice. *Bellcore Technical Memorandum,* BD-CSM-REQ-251.

5. Ku, C. S. (1996, September 6). CID/SAM/MOBE Data Requirements for the Antronix, Electroline, and Scientific Atlanta Full Service Taps. *Bellcore Technical Memorandum*, BD-CSM-REQ-244.

6. Ku, C. S. (1996, July 31). Requirement Specifications for the New SAM Class 2 Set Names in TMM. *Bellcore Technical Memorandum*, BD-TMM-RQT5.0.3-237.

7. Ku, C. S. (1996, July 31). CID/SAM/MOBE Data Requirements for AT&T SLC3 NIU Equipment. *Bellcore Technical Memorandum*, BD-CSM-REQ-198.

8. Ku, C. S. (1996, July 31). CID/SAM/MOBE Data Requirements for AT&T FN (Fiber Node) Equipment. *Bellcore Technical Memorandum*, BD-CSM-REQ-199.

9. Ku, C. S. (1996, July 31). CID/SAM/MOBE Data Requirements for Siecor FDC-001, FDC-002, FDC-003, and FDC-005 Equipment. *Bellcore Technical Memorandum*, BD-CSM-REQ-200.

10. Ku, C. S. (1996, July 31). CID/SAM/MOBE Data Requirements for Siecor WDC-001 Equipment. *Bellcore Technical Memorandum*, BD-CSM-REQ-201.

11. Ku, C. S., Smith, S. N., & Purtscher, D. J. (1995, December 20). Requirements Specifications for Eliminating the Transport Design and Service Design (TDSD) Database-Issue 2. *Bellcore Technical Memorandum,* BD-CSM-REQ-7.

12. Ku, C. S. & Colaizzi, A. (1995, September 22). Requirement Specifications for the Relationship between Internal Connections and Ports in TMM. *Bellcore Technical Memorandum,* BD-TMM-RQT-25.

13. Feeley, E. M. & Ku, C. S. (1995, August). TMM Equipment Model Building Process. *Bellcore Technical Memorandum,* TM-24670.

14. Ku, C. S. & Webb, E. I. (1995, March 31). Requirement Specifications for the Download Process of Technology Management Module (TMM) to Support Phase I of Model Modifications. *Bellcore Technical Memorandum,* BD-TMM-RQT-17.

15. Ku, C. S. & El-Gayar, M. A. (1994, July 31). Feature Requirements Description for Changing an Equipment Enclosed Assembly Model Based on the Same Chassis. *Bellcore Technical Memorandum*, BD-TMM-RQT-5.

16. Ku, C. S. (1993, June 18). TMM 1.0 Chassis Model and Assembly Model Test Data for Rockwell LMS-3192 Span Termination System. *Bellcore Technical Memorandum*, TM-OPT-023064.

17. Ku, C. S. (1993, May 24). TMM 1.0 Chassis Model and Assembly Model Test Data for ADC/Kentrox T-TERM 220 Central Office Repeater Shelf. *Bellcore Technical Memorandum*, TM-OPT-022994.

18. Ku, C. S. (1993, May 24). TMM 1.0 Chassis Model and Assembly Model Test Data for AT & T Small Cross-Section Office Repeater Shelf. *Bellcore Technical Memorandum*, TM-OPT-022993.

19. Ku, C. S. (1992, June 30). ADEX Detailed Requirements: Performance Improvements in ADEX. *Bellcore Technical Memorandum*, TM-OPT-021779.

20. Ku, C. S. (1992, June 30). ADEX Release 2.0 Functional Requirements: The Enhancements of the Data Transformation Service. *Bellcore Technical Memorandum*, TM-OPT-020997.

21. Ku, C. S. & Wood, J. W. (1991, December 31). ADEX Release 2.0 Detail Requirements. *Bellcore Technical Memorandum*, TM-OPT-020274.

22. Ku, C. S. & Burbage, C. (1991, December 13). JOB/ADEX/JMOS-IF Engineering Work Order Data Interface Requirements. *Bellcore Technical Memorandum*, TM-OPT-020564.

23. Ku, C. S. & Wood, J. W. (1991, December 13). WPG/ADEX/JOB Engineering Work Order Data Interface Requirements. *Bellcore Technical Memorandum*, TM-OPT-020407.

24. Ku, C. S. & Tilley, T. B. (1991, December 13). JOB/ADEX/LFACS-IF Engineering Work Order Data Interface Requirements. *Bellcore Technical Memorandum*, TM-OPT-020344.

25. Ku, C. S. & Tilley, T. B. (1991, December 13). WPG/ADEX/LFACS-IF Loop Makeup Data Interface Requirements. *Bellcore Technical Memorandum*, TM-OPT-020343.

26. Bailey, M. C., Devaney, C. J., Ku, C. S., Mayer, A. J., Mulligan, M. E., & Webb, E. F. (1991, April 8). Business Needs Analysis Report of the Unit Inventory Architecture Team. *Bellcore Technical Memorandum*, TM-OPT-017624.

27. Kessmann, R. W. & Ku, C. S. (1985, July). Improved Signal Timing Plan Selection. *Technical Report for the Federal Highway Administration, U.S. Department of Transportation,* under contract DTFH61-84-C00018.

28. Kessmann, R. W., Ku, C. S., & Cooper, D. L. (1985, March). Labor Saving Methods for Improved Operation of Computer Controlled Traffic Signal Systems: 1.5 Generation Functional Description and Software Development Guidelines. *Technical Report for the Federal Highway Administration, U. S. Department of Transportation,* under contract DTFH61-82-00091.

29. Kessmann, R. W., Ku, C. S., & Cooper, D. L. (1985, February). Alternative Control Strategy Evaluation and Detector Placement Guidelines for a 1.5 Generation Traffic Control System. *Technical Report for the Federal Highway Administration, U. S. Department of Transportation,* under contract DTFH61-82-00091.

30. Kessmann, R. W., Ku, C. S., & Cooper, D. L. (1985, February). Labor Saving Methods for Improved Operation of Computer Controlled Traffic Signal Systems: 1.5 Generation Feasibility Study. *Technical Report for the Federal Highway Administration, U. S. Department of Transportation,* under contract DTFH61-82-00091.

31. Ku, C. S. & Lindquist, T. E. (1982, September). PEEP: A Pascal Environment for Experiments on Programming. *Technical Report CSIE-82-9,* Department of Computer Science, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

INVITED TALK / PRESENTATION

1. Marlowe, T. J. (2023, December 8). Ethics in the Era of Artificial Intelligence – Personal, Professional and Societal. *Computer Science Departmental Seminar,* Department of Mathematics and Computer Science, Seton Hall University, South Orange, New Jersey, USA. Contents contributed by Laracy, J. R., Marlowe, T. J., Ku, C. S., & Kirova, V. D.

2. Laracy, J. R. & Marlowe, T. J. (2023, November 17). Ethics in the Era of Artificial Intelligence – Personal, Professional and Societal. *Conference on Civilizational Prospects: Engaging Wicked Problems,* Seton Hall University, South Orange, New Jersey, USA. Contents contributed by Laracy, J. R., Marlowe, T. J., Ku, C. S., & Kirova, V. D.

3. Zuta, E. & Ku, C. S. (2023, September 28). Sentiment Analyses on Social Media Data. *MaCS Scholars Summer Research Presentation,* William Paterson University, Wayne, New Jersey, USA.

4. Ranjan, S., Ku, C. S., & Green, R. (2023, March 18). Healthcare Informatics–A Knowledge Discovery Approach. *ACJS (Academy of Criminal Justice Sciences) 60th Annual Meeting,* National Harbor, Maryland, USA. Presented by Ku, C. S. Contents contributed by Ranjan, S., Ku, C. S., & Green, R.

5. Ku, C. S. (2023, February 9). Data Science Research in the Computer Science Department. *GS-LSAMP (Garden State – Louis Stokes Alliance for Minority Participation) Meeting*, *College of Science and Health, William Paterson University,* Wayne, New Jersey, USA.

6. Ku, C. S. (2022, October 6). Cognitive Science: Perspectives from Computer Science (Artificial Intelligence and Computer Architecture). *Cognitive Science I - Seminar (CGSI 2000) class, Department of Psychology/Honors College – Cognitive Science Track, William Paterson University,* Wayne, New Jersey, USA.

7. Champanerkar, J. (2022, September 29). Supporting Undergraduate Mathematics and Computer Science Students with Scholarships and Culturally Responsive Mentoring. *AAAS (American Association for the Advancement of Science) S-STEM Symposium,* Washington, D. C., USA. Contents contributed by Champanerkar, J., von Dohlen, P., Ku, C. S., Liu, W., Hill, D., & Sharma, V.

8. Choi, J. A. (2022, May 9). Resolving Representational Harms in NLP: Identifying and Addressing Big Data Driven Gender Bias in Natural Language Processing Models. *2022 NJBDA (New Jersey Big Data Alliance) Symposium,* New Jersey Institute of Technology, Newark, New Jersey, USA. Contents contributed by Choi, J. A., Ku, C. S., Kashyap, R., & Samuel, J.

9. Ku, C. S. & Choi, J. A. (2021, October 5). Big Data Analytics on Social Media Data. *Computer Science Seminar (CS 4800) class, Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

10. Ku, C. S. (2021, September 14). Identifying the Public's Changing Concerns during a Global Health Crisis: Text Mining and Comparative Analysis of Tweets during the COVID-19 Pandemic. *The 6th IEEE/ACIS International Semi-Virtual Conference on Big Data, Cloud Computing, and Data Science Engineering (BCD 2021),* Zhuhai, China. Contents contributed by Ku, C. S. & Choi, J. A.

11. Ku, C. S. (2021, March 11). Big Data Analytics (Natural Language Processing and Text Mining) on Social Media Data. *GS-LSAMP (Garden State – Louis Stokes Alliance for Minority Participation) Meeting*, *College of Science and Health, William Paterson University,* Wayne, New Jersey, USA.

12. Ku, C. S. (2020, October 1). Computer Architecture, Artificial Intelligence, and Their Relationship to Neuroscience. *Cognitive Science I - Seminar (CGSI 2000) class, Department of Psychology/Honors College – Cognitive Science Track, William Paterson University,* Wayne, New Jersey, USA.

13. (2020, April). A Web-based Platform for Mining and Analyzing Social Media Data. (Poster Presentation). *EXPLORATIONS: Research, Scholarship and Creative Expression at William Paterson University*, Wayne, New Jersey, USA. Contents contributed by Novikov, D., Ku, C. S., & Choi, J. A.

14. Cordova, N. K. (2019, May 3). A Knowledge Discovery Approach to Mental Health Problems in New York City. *Computer Science Advisory Board Meeting, Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA. Contents contributed by Steinel, S. M., Cordova, N. K., Ku, C. S., Basch, C. H., & Hillyer, G. C.

15. Steinel, S. M. & Cordova, N. K. (2019, April 4). A Knowledge Discovery Approach to Mental Health Problems in New York City: Phase Two. (Poster Presentation). *EXPLORATIONS: Research, Scholarship and Creative Expression at William Paterson University*, Wayne, New Jersey, USA. Contents contributed by Steinel, S. M., Cordova, N. K., Ku, C. S., Basch, C. H., & Hillyer, G. C.

16. (2019, March 2). A Knowledge Discovery Approach to Analyzing Mental Health Problems in NYC. (Poster Presentation). *The 90th Meeting of the Eastern Psychological Association,* New York City, New York, USA. Contents contributed by Steinel, S. M., Freestone, D. M., & Ku, C. S.

17. Ku, C. S. (2018, October 10). Artificial Intelligence: An Overview. *Cognitive Science I - Seminar (CGSI 2000) class, Department of Psychology/Honors College – Cognitive Science Track, William Paterson University,* Wayne, New Jersey, USA.

18. Ku, C. S. (2018, May 4). Data Science Research in the Department of Computer Science at William Paterson University. *Computer Science Advisory Board Meeting, Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

19. Steinel, S. M. (2018, April 10). A Knowledge Discovery Approach to Mental Health Problems in New York City: Phase One. (Poster Presentation). *EXPLORATIONS: Research, Scholarship and Creative Expression at William Paterson University,* Wayne, New Jersey, USA. Contents contributed by Steinel, S. M., Ku, C. S., Basch, C. H., & Marlowe, T. J.

20. Ku, C. S. (2018, March 22). Data Science Research in the Department of Computer Science at William Paterson University. *Computer Science Seminar, Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

21. Ku, C. S. (2017, November 6). My Big Data Project Stories. *Computer Science Seminar, Department of Mathematics and Computer Science, Seton Hall University,* South Orange, New Jersey, USA.

22. Ku, C. S. (2017, November 3). My Big Data Project Stories. *Computer Science Seminar (CS 4800) class, Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

23. Ku, C. S. (2017, November 3). Cognitive Science: A Computer Science Perspective. *Cognitive Science I (CGSI 2000) class, Department of Psychology/Honors College – Cognitive Science Track, William Paterson University,* Wayne, New Jersey, USA.

24. Herbert, K. G. (2017, June 26). The NECST Program – Networking and Engaging in Computer Science and Information Technology Program. *The 124th ASEE (American Society for Engineering Education) Annual Conference & Exposition,* Columbus, Ohio, USA. Contents contributed by Herbert, K. G., Marlowe, T. J., Fails, J. A., Ku, C. S., Goedert, K. M., Hill, E., Goodey, N. M., & MacVeigh, D. T.

25. Ocampo, A. K. (2017, May 5). Data Analytics for YRBS (Youth Risk Behavior Survey) Data using Machine Learning and Data Mining Techniques. (Poster Presentation). *EXPLORATIONS: Research, Scholarship and Creative Expression at William Paterson University,* Wayne, New Jersey, USA. Contents contributed by Ocampo, A. K. & Ku, C. S.

26. Ocampo, A. K. (2017, April 6). Data Analytics for YRBS (Youth Risk Behavior Survey) Data using Machine Learning and Data Mining Techniques. *Computer Science Advisory Board Meeting, Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA. Contents contributed by Ocampo, A. K. & Ku, C. S.

27. Ku, C. S. (2016, November 4). Cognitive Science: A Computer Science Perspective. *Cognitive Science I (CGSI 2000) class, Department of Psychology/Honors College – Cognitive Science Track, William Paterson University,* Wayne, New Jersey, USA.

28. Ocampo, A. K. (2016, April 19). The WPU YRBS (Youth Risk Behavior Survey) Data Mart. (Poster Presentation). *EXPLORATIONS: Research, Scholarship and Creative Expression at William Paterson University,* Wayne, New Jersey, USA. Contents contributed by Ocampo, A. K. & Ku, C. S.

29. Ku, C. S. (2015, November 20). Cognitive Science: A Computer Science Perspective. *Cognitive Science I (CGSI 2000) class, Department of Psychology/Honors College – Cognitive Science Track, William Paterson University,* Wayne, New Jersey, USA.

30. Ku, C. S. (2015, November 6). Requirements Elicitation and Knowledge Management for Big Data Projects. *Computer Science Seminar, Department of Mathematics and Computer Science, Seton Hall University,* South Orange, New Jersey, USA.

31. Ku, C. S. (2015, April 2). The Extension of the Unified Process. *University Research and Scholarship Days, William Paterson University,* Wayne, New Jersey, USA.

32. Ku, C. S. (2014, October 31). Artificial/Machine Intelligence: An Overview. *Computer Science Seminar, Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

33. Ku, C. S. (2014, October 27). The Multi-Dimensional Unified Process. *Computer Science Colloquium, Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

34. Ku, C. S. (2014, April 3). The Multi-Dimensional Unified Process for Collaborative Software Development. *University Research and Scholarship Day, William Paterson University,* Wayne, New Jersey, USA.

35. Ku, C. S. (2013, October 18). Artificial/Machine Intelligence: An Overview. *Cognitive Science I (CGSI 2000) class, Department of Psychology/Honors College – Cognitive Science Track, William Paterson University,* Wayne, New Jersey, USA.

36. Zaluska, B. (2013, April 4). Performance Prediction of Multi-Core DSP Processor using a Statistical Approach. (Poster Presentation). *University Research and Scholarship Day, William Paterson University,* Wayne, New Jersey, USA. Contents contributed by Zaluska, B., Avila, E., Hu, E. W., Ku, C. S., & Su, B.

37. Ku, C. S. (2013, April 4). Collaborative Agile Multi-Dimensional Unified Process. *University Research and Scholarship Day, William Paterson University,* Wayne, New Jersey, USA.

38. Ku, C. S. (2012, December 7). Artificial/Machine Intelligence: An Overview. *Cognitive Science I (CGSI 2000) class, Department of Psychology/Honors College – Cognitive Science Track, William Paterson University,* Wayne, New Jersey, USA.

39. Ku, C. S. (2012, November 26). Abstraction in Computer Science. *Department of Computer Science, Montclair State University,* Montclair, New Jersey, USA.

40. Jastroch, N. (2012, October 12). Advanced Collaborative Enterprise Systems. *ACES FlnES Cluster Meeting, European Commission,* Brussels, Belgium. Contents contributed by Jastroch, N., Ku, C. S., Marlowe, T. J., & Kirova, V. D.

41. Ku, C. S. (2012, April 5). Collaborative Software Engineering Models. *University Research and Scholarship Day, William Paterson University,* Wayne, New Jersey, USA.

42. Ku, C. S. (2011, November 11). Artificial Intelligence: An Overview. *Cognitive Science I (CGSI 2000) class, Department of Psychology/Honors College – Cognitive Science Track, William Paterson University,* Wayne, New Jersey, USA.

43. Ku, C. S. (2011, October 22). Database Development. *Information Systems Management (NUR 7320) class, Department of Nursing, William Paterson University,* Wayne, New Jersey, USA.

44. Ku, C. S. (2011, April 7). The Complexity of DSP Benchmark Functions in Multi-Core Environments. *University Research and Scholarship Day, William Paterson University,* Wayne, New Jersey, USA.

45. Ku, C. S. (2011, February 28). The Complexity of DSP Benchmark Functions in Multi-Core Environments. *Computer Science Seminar (CS 480), Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

46. Kaufman, L. & Ku, C. S. (2011, February 17). Collaborative Teaching Strategies of Object-Oriented Paradigm across the Curriculum. *College of Science and Health Faculty Meeting, William Paterson University,* Wayne, New Jersey, USA.

47. Ku, C. S. (2010, April 1). Software Metrics for Collaborative Software Engineering Projects. *University Research and Scholarship Day, William Paterson University,* Wayne, New Jersey, USA.

48. Ku, C. S. (2010, March 29). Software Metrics for Collaborative Software Engineering Projects. *Computer Science Seminar (CS 480), Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

49. Ku, C. S. (2009, April 2). Performance Analysis of Digital Signal Processors Using SMV Benchmark. *University Research and Scholarship Day, William Paterson University,* Wayne, New Jersey, USA.

50. Ku, C. S. (2009, March 6). Performance Analysis of Digital Signal Processors Using SMV Benchmark. *Computer Science Seminar (CS 480), Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

51. Ku, C. S. (2007, September 14). Software Engineering Design Patterns for Relational Databases. *Computer Science Seminar (CS 480), Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

52. Ku, C. S. & Kang, P. K. (2007, April 5). Software Engineering Design Patterns for Relational Databases. (Poster Presentation). *University Research and Scholarship Day, William Paterson University,* Wayne, New Jersey, USA.

53. Ku, C. S. (2007, March 5). Software Engineering Design Patterns for Relational Databases. *Computer Science Seminar (CS 480), Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

54. Ku, C. S. & Kang, P. K. (2007, February 15). Design Patterns for Relational Databases. (Poster Presentation) *CfR Faculty-Student Scholarship Day, The Center for Research, College of Science and Health, William Paterson University,* Wayne, New Jersey, USA.

55. Ku, C. S. & Mantell, N. M. (2006, April 20). Design Patterns across Software Engineering and Databases. (Poster Presentation). *University Research and Scholarship Day, William Paterson University,* Wayne, New Jersey, USA.

56. Ku, C. S. & Mantell, N. M. (2006, February 2). Design Patterns across Software Engineering and Databases. (Poster Presentation). *Faculty-Student Scholarship Day, The Center for Research, College of Science and Health, William Paterson University,* Wayne, New Jersey, USA.

57. Brooks, G. M. & Ku, C. S. (2005, April 8). An Efficient Design and Implementation of a Deductive Object-Oriented Database System. (Poster Presentation). *The 16th Annual Saint Joseph's University Sigma Xi Student Research Symposium,* Philadelphia, Pennsylvania, USA.

58. Ku, C. S. & Brooks, G. M. (2004, October 22). Data Modeling and Query Processing in the Heterogeneous Architecture of Deductive Object-Oriented Database Systems. (Poster Presentation). *Faculty-Student Scholarship Day, The Center for Research, College of Science and Health, William Paterson University,* Wayne, New Jersey, USA.

59. Zhou, Y. H. & Ku, C. S. (2004, April 23). Qualitative Evaluation of Data-Warehousing Systems. (Poster Presentation). *The 15th Annual Saint Joseph's University Sigma Xi Student Research Symposium,* Philadelphia, Pennsylvania, USA.

60. Ku, C. S. & Zhou, Y. H. (2004, April 15). Qualitative Evaluation Profiles of Data-Warehousing Systems. *University Research & Scholarship Day, William Paterson University,* Wayne, New Jersey, USA.

61. Ku, C. S. (2004, March 26). A Deductive Object-Oriented Database System. *Computer Science Seminar (CS 480), Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

62. Ku, C. S. (2003, November 3). Qualitative Performance Profiles in Data-Warehousing Systems. *Computer Science Seminar (CS 480), Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

63. Ku, C. S. (2003, October 24). Total Optimization Strategies in On-Line Analytical Processing (OLAP) Systems. *Faculty-Student Scholarship Day, The Center for Research, College of Science and Health, William Paterson University,* Wayne, New Jersey, USA.

64. Ku, C. S. (2003, March 12). Query Capabilities and Evaluation in Multi-Dimensional Databases. *Computer Science Seminar (CS 480), Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

65. Ku, C. S. (2002, April 23). Query Capabilities and Evaluation in Multi-Dimensional Databases. *Department of Computer Science, Monmouth University,* West Long Branch, New Jersey, USA.

66. Ku, C. S. (2002, February 22). Query Capabilities and Evaluation in Multi-Dimensional Databases. *Department of Computer Science, William Paterson University,* Wayne, New Jersey, USA.

67. Ku, C. S. (2001, March 2). Intelligent Database Designs and Query Capabilities. *Department of Mathematics and Computer Science, Seton Hall University,* South Orange, New Jersey, USA.

68. Ku, C. S. (2000, March 22). Intelligent Database Systems – From Foundation to Architecture. *Department of Computer Science, Stevens Institute of Technology,* Hoboken, New Jersey, USA.

69. Ku, C. S. (1997, April 18). An Efficient Inference Scheme in Expert Database Systems. *Department of Computer Science, Monmouth University,* West Long Branch, New Jersey, USA.

70. Ku, C. S. (1994, July 13). TMM - Technology Management Module. *Broadband Protocol Engineering Sect., Broadband Communication Department, Electronics and Telecommunications Research Institute (ETRI),* Taejon, South Korea.

71. Ku, C. S. (1994, July 11). TMM - Technology Management Module. *Department of Computer Science and Statistics, Seoul National University,* Seoul, South Korea.

72. Ku, C. S. (1994, July 8). TMM - Technology Management Module. *Department of Computer Science, Chungnam National University,* Taejon, South Korea.

73. Ku, C. S. (1992, April 15). An Efficient Indefiniteness Inference Scheme in Indefinite Deductive Databases. *Department of Computer Science, Radford University,* Radford, Virginia, USA.

74. Ku, C. S. (1991, October 23). Data Integration. *Department of Electrical Engineering and Computer Science, Northwestern University,* Evanston, Illinois, USA.

75. Ku, C. S. (1989, May 23). Incremental Compilation of Rules in Indefinite Deductive Databases. *International Business Machines Corporation (IBM),* Poughkeepsie, New York, USA.

76. Ku, C. S. (1989, May 3). Incremental Compilation of Rules in Indefinite Deductive Databases. *Bell Communications Research (Bellcore),* Morristown, New Jersey, USA.

77. Ku, C. S. (1989, April 27). Incremental Compilation of Rules in Indefinite Deductive Databases. *Department of Computer Engineering, The University of Kansas,* Lawrence, Kansas, USA.

78. Ku, C. S. (1989, March 31). Incremental Compilation of Rules in Indefinite Deductive Databases. *Electronic Data Systems Corporation (EDS),* Auburn Hills, Michigan, USA.

79. Ku, C. S. (1989, March 17). Incremental Compilation of Rules in Indefinite Deductive Databases. *Corporate Research and Development, General Electric Company (GE),* Schenectady, New York, USA.