



## *Charles C. Tappert, Ph.D.*

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### [Google Scholar Publication Citations](#)

Extensive experience in computer science, specializing in artificial intelligence, big data analytics, quantum computing, pattern recognition, machine learning, deep learning, brain modeling, biometrics, pen computing and speech applications, cybersecurity, forensics, and project management. Taught graduate and undergraduate courses, supervised dissertations, and secured government contracts. Over 100 peer reviewed publications in prestigious international journals and conferences.

### **Education**

Ph.D. Electrical Eng., [Cornell, ECE](#) [Fulbright Scholar, Royal Inst. Tech.](#), Stockholm  
M.S. Electrical Eng., [Cornell, ECE](#) B.S. Engineering Sciences, [Swarthmore](#)

### **Academic Experience**

[Pace University, Seidenberg School of CSIS](#), **Computer Science Professor** 2000-present  
Director, [Doctor of Professional Studies \(D.P.S.\) in Computing Program](#);  
Director, [Pervasive Computing Lab](#); Supervised three M.S. Theses, thirty Doctoral Dissertations;  
Teaches Quantum Computing, Machine Learning, Big Data Analytics, Capstone Projects, Emerging IT  
[U.S. Military Academy](#), **Computer Science Associate Professor** 1993-2000  
Taught courses in Computer Graphics, Languages, Databases, Capstone Projects, Intro to Computing  
[SUNY Purchase and Pace University](#), **Adjunct Associate Professor** 1990-1993  
Taught undergraduate courses in Computer Operating Systems and Data Structures  
[North Carolina State University](#), **Computer Science Adjunct Assistant Professor** 1968-1972  
Taught graduate courses in Machine Learning, supervised five M.S. Theses and three Ph.D. Dissertations

### **Consulting/Research/Corporate Experience**

**Consultant: Wearable and Pen Computing, Handwriting Recognition, Patents 1992-present**  
Expert consultant on patent infringement cases re pen computing/handwriting recognition (1997-present)  
[Army Research Labs](#): Investigated the military potential of wearable computers (summers of 1996-1997)  
Gave seminars on online handwriting recognition at [Apple Computer](#), [Digital Equipment](#), [CIC](#) (1992-93)  
Improved IBM ThinkWrite handwriting recognizer and added European languages (1992-93, summer 94)  
**Research: [IBM Watson Lab](#): Pen Computing, Speech/Handwriting** 1972-1992

### **Recognition**

Spearheaded development of ThinkWrite handwriting recognizer in IBM's pen-enabled ThinkPad product  
Handwriting research project leader: supervised Post-Doctoral, co-op, and summer intern students  
A founding speech group member, developed systems to recognize discrete words and continuous speech  
**Research: [IBM Systems Division](#): Speech Recognition and Processing** 1967-1972  
Secured government contracts, principal investigator on four Rome Air Development Center contracts which led to the creation of the IBM Research Speech Group and IBM's continuous speech recognition systems

## AWARDS AND PROFESSIONAL RECOGNITION

### Awards

- **Pace University**
  - Distinguished Service Award: DPS in Computing Faculty Team
- **United States Military Academy at West Point**
  - Meritorious Civilian Service Award
  - Department of the Army Certificate of Appreciation
- **IBM Corporation**
  - Four patent achievement awards
- **Graduate School - Cornell University**
  - RCA Fellowship
  - Fulbright Fellowship for one-year study at the Royal Institute of Technology, Stockholm
- **Undergraduate School - Swarthmore College**
  - Sharpless Scholarship
  - Westinghouse Achievement Scholarship

### Professional Recognition

- Invited expert participating in the World Wide Web Consortium (W3C) Multimodal Working Group
- Member of the Advisory Board of The Institute for End User Computing, a nonprofit organization
- Expert consultant on patent infringement legal cases involving pen computing and handwriting recognition
- Co-chair with Dean Merritt of the 2002 Mid-Atlantic Student Workshop on Programming Languages and Systems (MASPLAS'02)
- Review papers for IEEE, ACM, and other technical publications as an internationally recognized expert in the areas of pattern recognition (especially handwriting recognition/pen computing and speech recognition/voice applications), software engineering, and artificial intelligence.

## *Publications*

[Google Scholar](#), [Seidenberg Citation Ranking, July 2020](#), [Research Gate](#)

## *Patents*

- [Link to U.S. Patent Office for texts of these patents](#)
- T.E. Chefalas and C.C. Tappert, "Silent Training by Error Correction for On-line Handwriting Recognition Systems," U.S. Patent 5,544,260, August 1996.
- T.E. Chefalas and C.C. Tappert, "Methods and Apparatus for Evolving a Starter Set of Handwriting Prototypes into a User-specific Set," U.S. Patent 5,319,721, June 1994.
- T. Fujisaki, J. Kim, G.J. Leibman, and C.C. Tappert, "On-line Handwriting Recognition Using a Prototype Confusability Dialog," U.S. Patent 5,315,667, May 1994.
- T.E. Chefalas and C.C. Tappert, "Elastic Prototype Averaging in Online Handwriting Recognition," U.S. Patent 5,287,415, February 1994.
- J. Kim, G.J. Leibman, and C.C. Tappert, "Method and Apparatus for Improving Prototypes of Similar Characters in On-line Handwriting Recognition," U.S. Patent 5,285,505, February 1994.
- T.E. Chefalas, T. Fujisaki, J. Kim, and C.C. Tappert, "Robust Prototype Establishment in an On-line Handwriting Recognition System," U.S. Patent 5,121,441, June 1992.
- H.A. Ellozy, H.H. Jeanty, and C.C. Tappert, "Handwriting Recognition Employing Pairwise Discriminant Measures," U.S. Patent 5,005,205, April 1991.
- C.C. Tappert, "Recognition System for Run-on Handwritten Characters," U.S. Patent 4,731,857, March 1988.
- A.S. Fox, E.C. Greanias, J. Kim, and C.C. Tappert, "System for Automatic Adjustment and Editing of Handwritten Text Image," U.S. Patent 4,727,588, February 1988.
- (Many technical inventions not patented were published in the [IBM Technical Disclosure Bulletin](#).)

## ***Book Chapters***

- T. Brooks, A. Kamruzzaman, A. Leider, and C.C. Tappert, [A Computer Science Perspective on Models of the Mind](#), in *Advances in Intelligent Systems and Computing*, Vol. 869, pp 759-772, Springer, 2018, ISBN 978-3-030-01057-7.
- C.C. Tappert, M. Villani, and S. Cha, "Keystroke Biometric Identification and Authentication on Long-Text Input," pp 342-367, Chapter 16 in *Behavioral Biometrics for Human Identification: Intelligent Applications*, Edited by Liang Wang and Xin Geng, Medical Information Science Reference, 2010.
- C.C. Tappert and S. Cha, "Handwriting Recognition Interfaces," Chapter 6, pp. 123-137, in *Text Entry Systems*, Scott MacKenzie and Kumiko Tanaka-Ishii (Eds.), Morgan Kaufmann, 2007.
- C.C. Tappert, A.S. Ruocco, K.A. Langdorf, F.J. Mabry, K.J. Heineman, T.A. Brick, D.M. Cross, S.V. Pellissier, and R.C. Kaste, "Military applications of wearable computers and augmented reality," Chapter 20, pp. 625-647, in *Fundamentals of Wearable Computers and Augmented Reality*, W. Barfield and T. Caudell (Eds.), Lawrence Erlbaum, 2001.
- T. Fujisaki, H.S.M. Beigi, C.C. Tappert, M. Ukelson and C.G. Wolf, "Online recognition of unconstrained handprinting: a stroke-based system and its evaluation," in *From Pixels to Features III: Frontiers in Handwriting Recognition*, S. Impedovo and J.C. Simon (Eds.), Elsevier Science Publishers, pp. 297-312, 1992.
- C.C. Tappert, "Speed, accuracy, flexibility trade-offs in on-line character recognition," in *Character and Handwriting Recognition*, P.S.P. Wang (Ed.), World Scientific, 1991, also *Int. J. Pattern Recognition and Artificial Intelligence*, Vol. 5, pp. 79-95, June 1991.
- T Fujisaki, T.E. Chefalas, J. Kim, C.C. Tappert, and C.G. Wolf, "Online Run-on character recognizer," in *Character and Handwriting Recognition*, P.S.P. Wang (Ed.), World Scientific, 1991, also *Int. J. Pattern Recognition and Artificial Intelligence*, Vol. 5, pp. 123-137, June 1991.
- C.C. Tappert, "An adaptive system for handwriting recognition," in *Graphonomics: Contemporary Research in Handwriting*, H.S.R. Kao, G.P. van Galen, and R. Hoosain (eds.), North Holland, pp. 185-198, 1986.

## ***Journal Articles – since joining Seidenberg faculty in 2000***

- M. Muniswamaiah, T. Agerwala and C. Tappert, [Query Optimization for Big Data Analytics](#), *Int. J. Computer Science and Info. Tech.*, Oct 2019.
- J.V. Monaco and C.C. Tappert, [The Partially Observable Hidden Markov Model and its Application to Keystroke Dynamics](#), *Pattern Recognition Journal*, Nov 2017.
- A.I. Schur and C.C. Tappert, [Speed and Accuracy Improvements in Visual Pattern Recognition Tasks by Employing Human Assistance](#), *Advances in Human Factors and System Interactions, Advances in Intelligent Systems and Computing 497*, I.L. Nunes (ed.), Springer International Publishing Switzerland, 2017.
- J.S. Li, L-C. Chen, J.V. Monaco, P. Singh, and C.C. Tappert, [A comparison of classifiers and features for authorship authentication of social networking messages](#), *Concurrency and Computation: Practice and Experience*, 2016.
- J.V. Monaco and C.C. Tappert, [The Partially Observable Hidden Markov Model with Application to Keystroke Biometrics](#), *arXiv preprint*, 2016.
- M. Ali, J.V. Monaco, C.C. Tappert, and M. Qiu, [Keystroke Biometric Systems for User Authentication](#), *J. Signal Processing Systems*, Springer, 2016.
- M. Ali, K. Thakur, and C.C. Tappert, [User Authentication and Identification using Neural Network](#), *J. Pattern Recognition*, Vol 2, No 2, June-Aug, 2015, pp 34-45.
- G.E. Perez, J.V. Monaco, C.C. Tappert, and L. Chen, [Cybersecurity Outreach for Underrepresented Minority Students](#), *National Cybersecurity Institute J.*, Vol 2, No 2, 2015.
- J. Leet, J.V. Monaco, J. Gibbons, and C.C. Tappert, [Using a Predefined Passphrase to Evaluate a Speaker Verification System](#), *AI Research, SCIEDU*, Vol 4, No 1, Jan 2015, pp 1-11.
- L. Jain, J.V. Monaco, M.J. Coakley, and C.C. Tappert, [Passcode Keystroke Biometric Performance on Smartphone Touchscreens is Superior to that on Hardware Keyboards](#), *Int. J. Research in Computer Apps. & Info. Tech.*, IASTER, Vol.2, Issue 4, July-August, 2014, pp 29-33.

- A. Schur and C. Tappert, [Combining Human and Machine Capabilities for Improved Accuracy and Speed in Visual Recognition Tasks](#), *Communications in Computer and Information Science*, Vol. 434, 2014, pp 368-372.
- C.C. Tappert and A. Stix, "Adapting to Change in a Masters-Level Real-World-Projects Capstone Course," *Info. Systems Education J.*, vol 10, issue 6, Dec 2012, pp 25-37.
- C. Nwosisi, S-H. Cha, Y.J. An, C.C. Tappert, and E. Lipsitz, "Predicting Deep Venous Thrombosis Using Binary Decision Trees," *Int. J. Engineering and Technology*, Vol 3, No 5, Oct 2011, pp 467-472.
- F. Grossman, C. Tappert, J. Bergin, and S.M. Merritt, "A Research Doctorate for Computing Professionals," *Communications of the ACM*, Vol 54, No 4, 2011, pp 133-141.
- C.C. Tappert and Allen Stix, "The Trend toward Online Project-Oriented Capstone Courses," *Computers in the Schools*, Vol 27, 2010, pp 1-27.
- C.C. Tappert, S. Cha, M. Villani, and R.S. Zack, "A Keystroke Biometric System for Long-Text Input," *Int. J. Info. Security and Privacy (IJISP)*, Vol 4, No 1, 2010, pp 32-60.
- S. Choi, S. Cha, and C. C. Tappert, "A Survey of Binary Similarity and Distance Measures," *Journal of Systemics, Cybernetics and Informatics*, Vol 8, No 1, 2010, pp 43-48.
- S. Cha and C.C. Tappert, "A Genetic Algorithm for Constructing Compact Binary Decision Trees," *J. Pattern Recognition Research (JPRR)*, Vol 4, No 1, 2009, pp 1-13.
- S. Cha, S. Yoon, and C.C. Tappert, "Enhancing Binary Feature Vector Similarity Measures," *J. Pattern Recognition Research (JPRR)*, Vol 1, No 1, 2006, pp 63-77.
- S. Cha, S. Yoon, and C.C. Tappert, "Handwriting Copybook Style Identification for Questioned Document Examination," *J. Forensic Document Examiners (AFDE)*, Vol 17, 2006, pp 1-16.
- C.C. Tappert and S. Cha, [Security-Related Research and Projects in Computing Promote Student Awareness of Security Issues](#), *Information Systems Education Journal (ISEDJ)*, Vol 4, No 82, 2006.
- S. Yoon, S. Choi, S. Cha, Y. Lee, and C.C. Tappert, [On the Individuality of the Iris Biometric](#), *Int. J. Graphics, Vision and Image Processing*, Vol 5, 2005.
- S.M. Merritt, A. Stix, J.E. Sullivan, F. Grossman, C.C. Tappert, and D.A. Sachs, "Developing a Professional Doctorate in Computing: A Fifth Year Assessment," *ACM Inroads (SIGCSE Bulletin)*, Vol 36, No 4, pp 42-46, 2004.
- Sung-Hyuk Cha, Charles C. Tappert, Michael Gibbons, and Yi-Min Chee, [Automatic Detection of Handwriting Forgery using a Fractal Number Estimate of Wrinkliness](#), *Int. J. Pattern Recognition and Artificial Intelligence*, Vol 18, No 7, pp 1361-1371, 2004.
- J.R. Loy, J. Myers, and C.C. Tappert, "Notebook versus desktop computers for cadets at West Point," *IEEE Transactions on Education*, Vol 39, 1996, pp 497-504.
- C.C. Tappert and J.R. Ward, "Pen computing - fad or revolution?," *Information Display*, pp 14-19, March 1992.
- T. Fujisaki, T.E. Chefalas, J. Kim, C.C. Tappert, and C.G. Wolf, "Online Run-on character recognizer: Design and performance," *Int. J. Pattern Recognition and Artificial Intelligence*, Vol. 1, May 1991.
- C.C. Tappert, "Speed, accuracy, and flexibility trade-offs in on-line character recognition," *Int. J. Pattern Recognition and Artificial Intelligence*, Vol. 5, No. 1/2, pp 79-95, 1991.
- C.C. Tappert, C.Y. Suen, and T. Wakahara, "The state-of-the-art in on-line handwriting recognition," *IEEE Transactions Pattern Analysis Machine Intelligence*, Vol 12, pp 787-808, Aug 1990.
- C.C. Tappert, A.S. Fox, J. Kim, S.E. Levy, and L.L. Zimmerman, "Handwriting recognition on transparent tablet over flat display," *J. Soc. Information Display*, Vol. 28/1, pp. 67-73, 1987.
- C.C. Tappert, "Cursive script recognition by elastic matching," *IBM J. Res. Devel.*, Vol. 26, pp. 765-771, Nov 1982.

### ***External Conference Papers – since joining Seidenberg in 2000***

- I. Barabasi, R.I. Frank, and C.C. Tappert,, "Framework and Patterns for Machine Learning as Microservices," Proc. SEDSI 2020, Southeast Decision Sciences Institute Conf., Charleston, Feb 2020.
- B. Jacob and C.C. Tappert, "A Data Analytics Model for Extended Real Estate Comparative Market Analysis," Proc. SEDSI 2020, Southeast Decision Sciences Institute Conf., Charleston, Feb 2020.
- K. Bathula, K. LNU, and C.C. Tappert, "Flight Disruption Insights With Big Data Analytics," Proc. SEDSI 2020, Southeast Decision Sciences Institute Conf., Charleston, Feb 2020.

- I. Barabasi, C.C. Tappert, D. Evans, and A.M. Leider, "Quantum Computing and Deep Learning Working Together to Solve Optimization Problems," Proc. 6th Annual Conf. Comp. Science & Comp. Intelligence: Artificial Intelligence (CSCI-ISAI), Las Vegas, Dec 2019.
- I. Barabasi, C.C. Tappert, D. Evans, and A.M. Leider, "Quantum Computing and Deep Learning Working Together to Solve Optimization Problems," Proc. 6th Annual Conf. Comp. Science & Comp. Intelligence: Artificial Intelligence (CSCI-ISAI), Las Vegas, Dec 2019.
- Y. Alhwaiti, M.Z. Chowdhury, A. Kamruzzaman, and C.C. Tappert, "Analysis of a Parameter-Based Computational Model of Long-Term Declarative Episodic Memory." Proc. 6th Annual Conf. Comp. Science & Comp. Intelligence: Artificial Intelligence (CSCI-ISAI), Las Vegas, Dec 2019.
- C.C. Tappert, "Who is the Father of Deep Learning?" Proc. 6th Annual Conf. Comp. Science & Comp. Intelligence: Artificial Intelligence (CSCI-ISAI), Las Vegas, Dec 2019.
- S.G. Pillai, J. Woodbury, N. Dikshit, A.M. Leider, and C.C. Tappert, "Machine Learning Analysis of Mortgage Credit Risk," Proc. [Future Technologies Conference - FTC 2019](#), San Francisco, Oct 2019.
- S. Li, S. Savaliya, L. Marino, A.M. Leider, and C.C. Tappert, "Brain Signal Authentication for Human-computer Interaction in Virtual Reality," Proc. [22nd Int. Conf. on Computational Science and Engineering](#), NYC, NY, Aug 2019.
- K. Brush, N. El Achraoui, J. Delgado, J. Johnson, R. Chepenik, T. McLean, S. Siddiqui, A. Verma, J. Sheridan, A. Leider, and C. Tappert, "Index of Difficulty Measurement for Handedness with Biometric Authentication," Proc. [21st Int. Conf. on HCI](#), Orlando, Florida, July 2019.
- M. Muniswamaiah, T. Agerwala and C. Tappert, "Query Performance Optimization in Databases for Big Data," Proc. [9th Int. Conf. Computer Science, Engineering and Application \(CCSEA\)](#), Toronto, Canada, July 2019.
- C.C. Tappert, R.I. Frank, I. Barabasi, A.M. Leider, D. Evans, and L. Westfall, "Experience Teaching Quantum Computing," Proc. Assoc. Supporting Computer Users in Educ. (ASCUE), Myrtle Beach, June 2019.
- C.C. Tappert and T. Agerwala, "Experience Teaching Emerging Information Technologies," Proc. Assoc. Supporting Computer Users in Educ. (ASCUE), Myrtle Beach, June 2019.
- A. Kamruzzaman, Y. Alhwaiti, A. Leider, and C.C. Tappert, "Quantum Deep Learning Neural Network," Proc. [IEEE Future of Information and Communication Conf. \(FICC\)](#), San Francisco, Mar 2019.
- R. Kimiecik, K. Peterson, I. Barabasi, P. Dalvi, A. Leider, C.C. Tappert, and J. Mondrosch, "Student User Experience with the IBM QISKit Quantum Computing Interface," Proc. [IEEE Future of Information and Communication Conf. \(FICC\)](#), San Francisco, Mar 2019.
- C.C. Tappert, A.M. Leider, and S. Li, "Student Assessment in a Capstone Computing Course," Proc. 2019 Southeast Decision Sciences Institute (SEDSI) Conference, Savannah, GA, Feb 2019.
- S. Li, S.-H. Cha, and C.C. Tappert, "Biometric Distinctiveness of Brain Signals Based on EEG," Proc. [IEEE 9th Int. Conf. Biometrics Theory, Applications and Systems \(BTAS 2018\)](#), Los Angeles, Oct 2018.
- T. Brooks, A. Kamruzzaman, A. Leider, and C.C. Tappert, "A Computer Science Perspective on Models of the Mind," Proc. [2018 IEEE Intelligent Systems Conf. \(IntelliSys\)](#), London, Sep 2018.
- J. Alam, R. Frank, and C. Tappert, "Comparing the Fairness of Two Popular Solution Concepts of Coalition Games: Shapley Value and Nucleolus," Proc. [2018 Southeastern Decision Sciences Inst.](#), Wilmington, NC, Feb 2018.
- B. Raggad and C. Tappert, "Security Risk Learning in Cybersecurity: Evidential Reasoning Model," Proc. [2018 Southeastern Decision Sciences Inst.](#), Wilmington, NC, Feb 2018.
- M.L. Ali, J.V. Monaco, and C.C. Tappert, "Keystroke Biometric studies with Hidden Markov Model and Its Extension on Short Fixed-Text Input," 8th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conf. (UEMCON), **Best Paper Award**, New York, NY, Oct 2017.
- M.L. Ali, J.V. Monaco, C.C. Tappert, and M. Qiu, "Keystroke Biometric Systems for User Authentication," Journal of Signal Processing Systems, Vol 86, pp 175-190, 2017.
- C. Tappert and J. Jadav, [Student Assessment in a Real-World-Projects Capstone Course in Computing](#), Proc. [2017 Southeastern Informs Conf](#), Myrtle Beach, SC, Oct 2017.
- J. Jadav, A. Burke, G. Goldberg, D. Lindelin, A. Preciado, C. Tappert, and M. Kollmer, [Correlation discovery between high school Student Web Queries and their Grade Point Average](#), Proc. [Computing and Communication Workshop and Conference \(CCWC\)](#), Las Vegas, Nevada, Jan 2017.

- J. Jadav, A. Burke, P. Dhiman, M. Kollmer, and C. Tappert, [Classification of Student Web Queries](#), *Proc. Computing and Communication Workshop and Conference (CCWC)*, Las Vegas, Nevada, Jan 2017.
- J. Jadav, A. Burke, P. Dhiman, M. Kollmer, and C. Tappert, "Analysis of Student Web Queries," *Proc. EDSIG Conf. Information Systems and Computing Education (EDSIG 2016)*, Las Vegas, Nevada, Nov 2016.
- J. Jadav, C. Tappert, M. Kollmer, A. Burke, and P. Dhiman, "Using Text Analysis on Web Filter Data to Explore K-12 Student Learning Behavior," *Proc. 7th IEEE Annual Ubiquitous Computing, Electronics & Mobile Com. Conf. (UEMCON 2016)*, NYC, New York, Oct 2016.
- L.A. Clevenger and C.C. Tappert, [Heartsound Biometric \(Abstract\)](#), *Proc. 5th Int. Conf. Biometrics & Biostatistics*, Houston, TX, Oct 2016.
- H. Mackin, G. Perez, and C.C. Tappert, [Adopting NoSQL Databases using a Quality Attribute Framework and Risks Analysis](#), *Proc. DSA 2016 1st Int. Symposium Data Science and Applications*, pp. 97-104. Milan, Italy, Oct 2016.
- R.D. Plumley and C.C. Tappert, [An Analysis of Project Team Assignments using Skill Heuristics](#), *Proc. SEINFORMS 2016 Southeastern Chapter of InfORMS*, Myrtle Beach, SC, Oct 2016, pp 18-27.
- H.W. Eng and C.C. Tappert, Consumer Acceptance of Biometric Security Technology, *Proc. NYIT 2016 NYIT 7th Annual Cybersecurity Conf.*, NYC, New York, Sept 2016.
- M.J. Coakley, J.V. Monaco, and C.C. Tappert, [Keystroke Biometric Studies with Short Numeric Input on Smartphones](#), *Proc. 8th IEEE Int. Conf. Biometrics (BTAS 2016)*, Niagara Falls, NY, Sept 2016.
- J. Maghsoudi and C.C. Tappert, [A Behavioral Biometrics User Authentication Study Using Motion Data from Android Smartphones](#), *Proc. 2016 European Intelligence and Security Informatics Conf. (EISIC 2016)*, Uppsala, Sweden, Aug 2016, pp 184-187.
- A.I. Schur and C.C. Tappert, [Speed and Accuracy Improvements in Visual Pattern Recognition Tasks by Employing Human Assistance](#), *Proc. 7th Int. Conf. Applied Human Factors and Ergonomics (AHFE 2016)*, Orlando, Florida, July 2016.
- J.V. Monaco and C.C. Tappert, [Obfuscating Keystroke Time Intervals to Avoid Identification and Impersonation](#), *Proc. 9th IAPR Int. Conf. Biometrics (ICB 2016)*, Halmstad, Sweden, June 2016.
- C.C. Tappert, A. Cotoranu, and J.V. Monaco, [A Real-World-Projects Capstone Course in Computing: A 15-year Experience](#), *Proc. Info Systems and Computing Education (EDSIG 2015) Conf.*, Wilmington, NC, Nov 2015.
- A. Butowsky, K. Gai, M. Coakley, M. Qiu, and C.C. Tappert, "City of White Plains Parking App: Case Study of a Smart City Web Application," *Proc. IEEE Int'l Conf. Cyber Security and Cloud Computing (CSCloud 2015)*, New York, NY, Nov 2015.
- M.L. Ali, C.C. Tappert, M. Qiu, and J.V. Monaco, "Authentication and Identification Methods Used in Keystroke Biometric Systems," *Proc. IEEE Int'l Conf. Cyber Security and Cloud Computing (CSCloud 2015)*, New York, NY, Nov 2015.
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- A. Schur and C.C. Tappert, [Employing Mobile Applications in Human-Machine Interaction in Visual Pattern Recognition Research](#), *Proc. 17th Int Conf Human-Computer Interaction (HCII 2015)*, Los Angeles, CA, Aug 2015.
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- J.S. Li, J.V. Monaco, L. Chen, and C.C. Tappert, [Authorship Authentication Using Short Messages from Social Networking Sites](#), *Proc. 11th Int. Conf. on e-Business Engineering (ICEBE 2014)*, Guangzhou, China, Nov 2014.
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- S. Kim, S. Cha, J.V. Monaco, and C.C. Tappert, [A Correlation Method for Handling Infrequent Data in Keystroke Biometric Systems](#), *Proc. 2nd Int. Workshop Biometrics & Forensics (IWBF 2014)*, Malta, Mar 2014.
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- J.V. Monaco, N. Bakelman, S. Cha, and C.C. Tappert, [Developing a Keystroke Biometric System for Continual Authentication of Computer Users](#), *Proc. 2012 European Intelligence and Security Informatics Conf.*, Odense, Denmark, Aug 2012, pp 210-216.
- C.C. Tappert and Allen Stix, "A Decade Review of a Masters-Level Real-World-Projects Capstone Course," *Proc. Info. Systems Educators Conf. (ISECON 2011)*, Wilmington N.C., Nov 2011.
- J.C. Stewart, J.V. Monaco, S. Cha, and C.C. Tappert, "An Investigation of Keystroke and Stylometry Traits," *Proc. Int. Joint Conf. Biometrics (IJCB 2011)*, Washington D.C., Oct 2011.
- C.C. Tappert and Allen Stix, "Project management and assessment of distributed teams in an online capstone masters-level information technology course," *Proc. 6th Int. Conf. e-Learning*, Kelowna, Canada, June 2011.
- C. Nwosisi, S. Cha, Y. An, C.C. Tappert and E. Lipsitz, "Constructing Binary Decision Trees for Predicting Deep Venous Thrombosis," *Proc. Int. Conf. Software Technology and Engineering*, San Juan, Puerto Rico, vol 1, pp 121-124, Oct 2010.
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- Y Nunez, F Gustavson, F Grossman, and C Tappert, "Designing a distributed patch management security system," *Information Society (i-Society) IEEE Int. Conf.*, London, pp 162-167, 2010.
- S. Cha, Y. An, and C.C. Tappert, "ROC Curves for Multivariate Biometric Matching Models," *Proc. Int. Conf. Artificial Intelligence and Pattern Recognition*, Orlando, Florida, July 2010.
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