

## Relationship between teaching and research activities

**Full Name:** Dr Savvas A. Chatzichristofis

**PhD Discipline:** PhD in Computer Vision.

**Research Topic:** Artificial Intelligence, Computer Vision, and Robotics

Course Code/Title	Publications	Relationship between research and teaching
<b>CS111</b> <b>Introduction to Computer Science</b>	1. A. Amanatiadis and <u>S. A. Chatzichristofis</u> , "HOW SMART ARE SMARTPHONES? BRIDGING THE MARKETING AND INFORMATION TECHNOLOGY GAP", «IEEE Consumer Electronics Magazine», IEEE, Volume 4, Issue 3, Oct. 2014, pp 51–54, IEEE.	<ul style="list-style-type: none"> <li>• Paper 1 contributes to CLO5</li> </ul>
<b>CS362 - Artificial Intelligence</b>	1. S. Evripidou, A. Amanatiadis, K. Christodoulou, and <u>S. A. Chatzichristofis</u> , "INTRODUCING ALGORITHMIC THINKING AND SEQUENCING USING TANGIBLE ROBOTS", «IEEE Transactions on Learning Technologies», IEEE, <i>Under Minor Revision</i> , 2019. 2. A. Ch. Kapoutsis, <u>S. A. Chatzichristofis</u> , and E. B. Kosmatopoulos, "A DISTRIBUTED, PLUG-N-PLAY ALGORITHM FOR MULTI-ROBOT APPLICATIONS WITH A PRIORI NON-COMPUTABLE OBJECTIVE FUNCTIONS", «International Journal of Robotics Research», SAGE, 38(7), June 2019, pp 813-832 3. N. P. Bitsakidis, <u>S. A. Chatzichristofis</u> , G.Ch. Sirakoulis, "HYBRID CELLULAR ANTS FOR CLUSTERING PROBLEMS", «International Journal Of Unconventional Computing»,	<ul style="list-style-type: none"> <li>• Paper 1 contributes to CLO2, CLO3, CLO4</li> <li>• Paper 2 contributes to CLO2, CLO3, CLO4</li> <li>• Paper 3 contributes to CLO2, CLO3, CLO6</li> <li>• Paper 4 contributes to CLO2, CLO3, CLO4</li> </ul>

	<p>Volume 11, 2015, pp. 103–130</p> <p>4. B. Zafar, R. Ashraf, N. Ali, M. Ahmed, S. Jabbar, and <u><b>S. A. Chatzichristofis</b></u>, “IMAGE CLASSIFICATION BY ADDITION OF SPATIAL INFORMATION BASED ON HISTOGRAMS OF ORTHOGONAL VECTORS”, «PLOS ONE», 13(6), 08 June 2018, pp 1-26.</p>	
<b>CSE02 – Compilers</b>	No directly related publications	
<b>CS353 - Image Processing</b>	<p>1. C. Iakovidou, M. Lux, N. Anagnostopoulos, K. Christodoulou, Y. Boutalis and <u><b>S. A. Chatzichristofis</b></u>, “COMPOSITE DESCRIPTION BASED ON SALIENT CONTOURS AND COLOR INFORMATION FOR CBIR TASKS”, «IEEE Transactions on Image Processing», IEEE, 28(6), June 2019, pp 3115-3129.</p> <p>2. B. Zafar, R. Ashraf, N. Ali, M. Ahmed, S. Jabbar, and <u><b>S. A. Chatzichristofis</b></u>, “IMAGE CLASSIFICATION BY ADDITION OF SPATIAL INFORMATION BASED ON HISTOGRAMS OF ORTHOGONAL VECTORS”, «PLOS ONE», 13(6), 08 June 2018, pp 1-26</p> <p>3. S. A. Vassou, N. Anagnostopoulos, K. Christodoulou, A. Amanatiadis and <u><b>S. A. Chatzichristofis</b></u>, “COMO: A SCALE AND ROTATION INVARIANT COMPACT COMPOSITE MOMENT-BASED DESCRIPTOR FOR IMAGE RETRIEVAL”, «Multimedia Tools and Applications», Springer, Volume 78(3), 2019, pp 2765–2788.</p> <p>4. L. Doitsidis, G. Fouskitakis, K. Varikou, I. Rigakis, <u><b>S. A. Chatzichristofis</b></u>, A.</p>	<p>1. Paper 1 contributes to CLO2, CLO3, CLO4</p> <p>2. Paper 2 contributes to CLO2, CLO3, CLO4</p> <p>3. Paper 3 contributes to CLO2, CLO3, CLO4</p> <p>4. Paper 4 contributes to CLO2, CLO3, CLO4</p> <p>5. Paper 5 contributes to CLO2, CLO3, CLO4</p> <p>6. Paper 6 contributes to CLO2, CLO3, CLO4</p>

	<p>Papafiippaki, A. Birouraki, "REMOTE MONITORING OF THE BACTROCERA OLEAE (GMELIN) (DIPTERA: TEPHRITIDAE) POPULATION USING AN AUTOMATED MCPHAIL TRAP", «Computers and Electronics in Agriculture», Elsevier, Volume 137, 2017, pp 69–78</p> <p>5. L. Bampis, <u>S. A. Chatzichristofis</u>, C. Iakovidou, A. Amanatiadis, Y. S. Boutalis and A. Gasteratos, "LOCATE-BASED VISUAL PLACE RECOGNITION SYSTEM FOR MOBILE ROBOTICS AND GPGPUS", «Concurrency and Computation: Practice and Experience», Wiley, Volume 30, Issue 7, 2018, pp 1-14.</p> <p>6. E. G. Karakasis, A. Amanatiadis, A. Gasteratos, and <u>S. A. Chatzichristofis</u>, "IMAGE MOMENTS AS LOCAL FEATURES FOR CONTENT BASED IMAGE RETRIEVAL USING THE BAG-OF-VISUAL-WORDS MODEL", «Pattern Recognition Letters», Elsevier, Volume 55, 1 April 2015, pp 22–27</p>	
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**Full Name:** Dr Zinon Zinonos

**PhD Discipline:** PhD in Computer Science

**Research Topic:** Internet of Things, Network Protocols

Course Code/Title	Publications	Relationship between research and teaching
CSE08 - IoT Networks and Protocols	<ol style="list-style-type: none"> <li>Georgiadis, Athanasios, Panayiotis Christodoulou, and Zinon Zinonos, "Citizens' Perception of Smart Cities: A Case Study." <i>Applied Sciences</i> 11, no. 6 (2021): 2517</li> <li>Khalifeh, A.; Rajendiran, K.; Darabkh, K.A.; Khasawneh, A.M.; AlMomani, O.; Zinonos, Z. On the Potential of Fuzzy Logic for Solving the Challenges of Cooperative Multi-Robotic Wireless Sensor Networks. <i>Electronics</i> 2019, 8, 1513.</li> <li>Z. Zinonos, C. Chysostomou, and V. Vassiliou, "Fuzzy Logic Control for Mobility Support in Industrial Wireless Sensor Networks," in <i>Cooperative Robots and Sensor Networks</i>, Springer, ISBN: 978-3-642-55028-7, 2014, pp 205-230.</li> <li>V. Vassiliou and <b>Z. Zinonos</b>, "An Analysis of the Handover Latency Components in Mobile IPv6", <i>Journal of Internet Engineering</i>, vol. 3, no. 1, Dec. 2009, pp. 230-240.</li> <li>A. Anastasiou, P. Christodoulou, K. Christodoulou, V. Vassiliou and Z. Zinonos, "IoT Device Firmware</li> </ol>	<p>My research activities have been focused on Protocol Design and Performance aspects of Networks. In particular my work includes several aspects of Internet of Things. The output of this research is included in the syllabi of CSE08 as part of the topics in IoT communication protocols, IoT architectures and applications.</p> <ol style="list-style-type: none"> <li>Paper 1 contributes to CLO2, CLO4</li> <li>Paper 2 contributes to CLO2, CLO4</li> <li>Paper 3 contributes to CLO1</li> <li>Paper 4 contributes to CLO4, CLO5</li> <li>Paper 5 contributes to CLO3</li> <li>Paper 6 contributes to CLO2, CLO4</li> <li>Paper 7 contributes to CLO2, CLO4</li> </ol>

	<p>Update over LoRa: The Blockchain Solution," <i>2020 16th International Conference on Distributed Computing in Sensor Systems (DCOSS)</i>, Marina del Rey, CA, USA, 2020, pp. 404-411, doi: 10.1109/DCOSS49796.2020.00070.</p> <p>6. G. Eleftheriou, L. Doitsidis, Z. Zinonos and S. A. Chatzichristofis, "A Fuzzy Rule-Based Control System for Fast Line-Following Robots," <i>2020 16th International Conference on Distributed Computing in Sensor Systems (DCOSS)</i>, Marina del Rey, CA, USA, 2020, pp. 388-395, doi: 10.1109/DCOSS49796.2020.00068.</p> <p>7. Z. Zinonos, P. Christodoulou, A. Andreou and S. Chatzichristofis, "ParkChain: An IoT Parking Service Based on Blockchain," <i>2019 15th International Conference on Distributed Computing in Sensor Systems (DCOSS)</i>, Santorini Island, Greece, 2019, pp. 687-693, doi: 10.1109/DCOSS.2019.00123.</p>	
CS354 - Advanced Computer Networks	<p>1. Z. Zinonos, C. Chysostomou, and V. Vassiliou, "Fuzzy Logic Control for Mobility Support in Industrial Wireless Sensor Networks," in <i>Cooperative Robots and Sensor Networks</i>, Springer, ISBN: 978-3-642-55028-7, 2014, pp 205-230.</p>	<p>In my research I investigate the performance of mobility management mechanisms in relation to different mobility models, traffic patterns and topologies. This work provides an experimental</p>

	<ol style="list-style-type: none"> <li>2. Z. Zinonos, C. Chysostomou, and V. Vassiliou, "Wireless Sensor Networks Mobility Management using Fuzzy Logic," Elsevier Ad Hoc Networks Journal, Volume 16, May 2014, Pages 70-87</li> <li>3. V. Vassiliou and Z. Zinonos, "An Analysis of the Handover Latency Components in Mobile IPv6", Journal of Internet Engineering, vol. 3, no. 1, Dec. 2009, pp. 230-240.</li> <li>4. G. Eleftheriou, L. Doitsidis, Z. Zinonos and S. A. Chatzichristofis, "A Fuzzy Rule-Based Control System for Fast Line-Following Robots," 2020 16th International Conference on Distributed Computing in Sensor Systems (DCOSS), Marina del Rey, CA, USA, 2020, pp. 388-395, doi: 10.1109/DCOSS49796.2020.00068.</li> <li>5. Z. Zinonos and V. Vassiliou, "Mobility Management Solutions in Industrial Wireless Sensor Networks," 2019 15th International Conference on Distributed Computing in Sensor Systems (DCOSS), Santorini Island, Greece, 2019, pp. 675-681, doi: 10.1109/DCOSS.2019.00121.</li> <li>6. Z. Zinonos, V. Vassiliou, and K. Christodoulou, "Reliable Mobility Support for e-Health Monitoring: A Performance Evaluation", in Proc. IEEE 2018 Innovations in Intelligent</li> </ol>	<p>analysis of the latency components in Mobile IPv6 handovers through measurements in a real MIPv6 implementation on a wireless test-bed based on IEEE 802.11b. The output of this research is presented in course CS354 as part of the topic in wireless and mobile networks.</p> <ol style="list-style-type: none"> <li>1. Paper 1 contributes to CLO2, CLO4</li> <li>2. Paper 2 contributes to CLO1</li> <li>3. Paper 3 contributes to CLO3, CLO4</li> <li>4. Paper 4 contributes to CLO1</li> <li>5. Paper 5 contributes to CLO2, CLO4</li> <li>6. Paper 6 contributes to CLO1</li> <li>7. Paper 7 contributes to CLO1</li> <li>8. Paper 8 contributes to CLO3, CLO4</li> </ol>
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		<p>Systems and Applications (INISTA 2018), 3-5 July, 2018, Thessaloniki, Greece.</p> <p>7. Z. Zinonos, V. Vassiliou, C. Chrysostomou, "Adaptive Fuzzy Logic Mobility Management for WSN," in Proc. Distributed Computing in Sensor Systems (DCOSS), 2014 IEEE International Conference on, pp.302-307, 26-28 May 2014</p> <p>8. Z. Zinonos, C. Chrysostomou, and V. Vassiliou, "Handoff Triggering for Wireless Sensor Networks with Performance Needs," in Proc. 18th IEEE Symposium on Computers and Communications. (ISCC 2013), 7-10 July 2013, Split Croatia.</p>	
CS232 Communication Networks	-	<p>1. Zinon Zinonos, Chrysostomos Chrysostomou, and Vasos Vassiliou, "Handover Control in Harsh Radio Environments: An industrial Application Scenario", IC1004 TD(12)04052, COST1004, April 2012</p> <p>2. V. Vassiliou and Z. Zinonos, "A Component-based Analysis of the Mobile IPv6 Handover from the Applications' Perspective", TD(07)031, COST290 Oct. 2007.</p>	<p>My research activities have been focused on Protocol Design and Performance aspects of Networks which constitute main elements of CS232.</p> <p>1. Paper 1 contributes to CLO3,CLO6</p> <p>2. Paper 2 contributes to CLO3, CLO5</p>
CSE01 Introduction to Innovation and Entrepreneurship	-	<p>1. Carayannis, Elias G., Klitos Christodoulou, Panayiotis Christodoulou, Savvas A. Chatzichristofis, and Zinon Zinonos.</p>	<p>1. Paper 1 contributes to CLO1</p> <p>2. CEO of Viridom contributes to CLO2, CLO3</p>

	<p>"Known Unknowns in an Era of Technological and Viral Disruptions—Implications for Theory, Policy, and Practice." Journal of the Knowledge Economy (2021): 1-24</p> <p>2. CEO of startup company Viridom</p>	
CSE13- Network Management	<p>1. Zinon Zinonos, Chrysostomos Chrysostomou, and Vasos Vassiliou, "Handover Control in Harsh Radio Environments: An industrial Application Scenario", IC1004 TD(12)04052, COST1004, April 2012</p> <p>2. V. Vasiliou and Z. Zinonos, "A Component-based Analysis of the Mobile IPv6 Handover from the Applications' Perspective", TD(07)031, COST290 Oct. 2007.</p>	<p>My research activities have been focused on Protocol Design and Performance aspects of Networks which constitute main elements of CSE13.</p> <p>1. Paper 1 contributes to CLO1</p> <p>2. Paper 2 contributes to CLO1</p>
CS245- Computer Networks Lab	<p>1. V. Vassiliou and Z. Zinonos, "An Analysis of the Handover Latency Components in Mobile IPv6", Journal of Internet Engineering, vol. 3, no. 1, Dec. 2009, pp. 230-240.</p> <p>2. V. Vasiliou and Z. Zinonos, "A Component-based Analysis of the Mobile IPv6 Handover from the Applications' Perspective", TD(07)031, COST290 Oct. 2007.</p>	<p>My research activities have been focused on Protocol Design and Performance aspects of Networks which constitute main elements of CS245.</p> <p>1. Paper 1 contributes to CLO1</p> <p>2. Paper 2 contributes to CLO1</p>



**Full Name:** Dr Panayiotis Christodoulou

**PhD Discipline:** PhD in Computer Engineering and Informatics

**Research Topic:** Designing and Evaluating Intelligent Context-Aware Recommender Systems: Methodologies and Applications

Course Code/Title	Publications	Relationship between research and teaching
<b>CSE03</b> Distributed Ledger Technologies	<ol style="list-style-type: none"> <li>1. Christodoulou, P., Christodoulou, K., &amp; Andreou, A. (2018). A decentralized application for logistics: Using blockchain in real-world applications. The Cyprus Review, 30(2), 181-193.</li> <li>2. Christodoulou, K., Chatzichristofis, S. A., Sirakoulis, G. C., &amp; Christodoulou, P. (2019). RandomBlocks: A Transparent, Verifiable Blockchain-based System for Random Numbers. J. Cell. Autom., 14(5-6), 335-349.</li> <li>3. Christodoulou, K., Christodoulou, P., Zinonos, Z., Carayannis, E. G., &amp; Chatzichristofis, S. A. (2020, May). Health Information Exchange with Blockchain amid Covid-19-like Pandemics. In 2020 16th International Conference on Distributed Computing in Sensor Systems (DCOSS) (pp. 412-417). IEEE.</li> <li>4. Anastasiou, A., Christodoulou, P., Christodoulou, K., Vassiliou, V., &amp; Zinonos, Z. (2020, May). IoT Device Firmware Update over LoRa: The Blockchain Solution. In 2020 16th International Conference on Distributed Computing in Sensor Systems (DCOSS) (pp. 404-411). IEEE.</li> </ol>	<p>My research covers in depth the analysis, design and implementation of decentralized applications using various DLT which constitute main elements of CSE403.</p> <p>Papers 1,2,3,4,5 and 6 contribute to all CLOs.</p>

	<ol style="list-style-type: none"> <li>5. Zinonos, Z., Christodoulou, P., Andreou, A., &amp; Chatzichristofis, S. (2019, May). Parkchain: An iot parking service based on blockchain. In 2019 15th International Conference on Distributed Computing in Sensor Systems (DCOSS) (pp. 687-693). IEEE.</li> <li>6. Christodoulou, P., &amp; Christodoulou, K. (2020, November). Developing more Reliable News Sources by utilizing the Blockchain technology to combat Fake News. In 2020 Second International Conference on Blockchain Computing and Applications (BCCA) (pp. 135-139). IEEE.</li> </ol>	
<b>CS361</b> Software Engineering	<ol style="list-style-type: none"> <li>1. Christodoulou, P., Christodoulou, K., &amp; Andreou, A. (2018). A decentralized application for logistics: Using blockchain in real-world applications. The Cyprus Review, 30(2), 181-193</li> <li>2. Christodoulou, K., Christodoulou, P., Zinonos, Z., Carayannis, E. G., &amp; Chatzichristofis, S. A. (2020, May). Health Information Exchange with Blockchain amid Covid-19-like Pandemics. In 2020 16th International Conference on Distributed Computing in Sensor Systems (DCOSS) (pp. 412-417). IEEE.</li> <li>3. Anastasiou, A., Christodoulou, P., Christodoulou, K., Vassiliou, V., &amp; Zinonos, Z. (2020, May). IoT Device Firmware Update over LoRa: The Blockchain Solution. In 2020 16th International Conference on Distributed Computing in Sensor</li> </ol>	<p>My research covers in depth all phases of software lifecycle models as well as the construction of UML models/diagrams that constitute main elements of CS361.</p> <p>Papers 1,2,3 and 4 contribute to all CLOs.</p>

	<p>Systems (DCOSS) (pp. 404-411). IEEE</p> <p>4. Christodoulou, P. (2017). Designing and evaluating intelligent context-aware recommender systems: methodologies and applications (Doctoral dissertation, Department of Electrical Engineering and Computer Engineering and Informatics).</p>	
<p><b>CS242</b> Operating Systems</p>	<ol style="list-style-type: none"> <li>1. Chatzis, S. P., Christodoulou, P., &amp; Andreou, A. S. (2017, August). Recurrent latent variable networks for session-based recommendation. In Proceedings of the 2nd Workshop on Deep Learning for Recommender Systems (pp. 38-45).</li> <li>2. Anastasiou, A., Christodoulou, P., Christodoulou, K., Vassiliou, V., &amp; Zinonos, Z. (2020, May). IoT Device Firmware Update over LoRa: The Blockchain Solution. In 2020 16th International Conference on Distributed Computing in Sensor Systems (DCOSS) (pp. 404-411). IEEE</li> <li>3. Zinonos, Z., Christodoulou, P., Andreou, A., &amp; Chatzichristofis, S. (2019, May). ParkChain: An IoT Parking Service Based on Blockchain. In 2019 15th International Conference on Distributed Computing in Sensor Systems (DCOSS) (pp. 687-693). IEEE.</li> </ol>	<p>My research covers in depth the development of software on various Operating systems and environments as well as Distributed Systems which constitute main elements of CS242.</p> <p>Papers 1 and 3 contribute to CLO1, CLO4, CLO5 and CLO6.</p> <p>Paper 2 contributes to CLO3.</p>
<p><b>CS364</b> Web Applications technologies</p>	<ol style="list-style-type: none"> <li>1. Christodoulou, P., Lestas, M., &amp; Andreou, A. S. (2014). Applying hard and fuzzy k-modes clustering for dynamic web recommendations.</li> </ol>	<p>My research covers in depth the analysis, design and implementation of web applications which constitute main elements of CS364.</p>

	<p>Engineering Intelligent Systems.</p> <ol style="list-style-type: none"> <li>2. Anastasiou, A., Christodoulou, P., Christodoulou, K., Vassiliou, V., &amp; Zinonos, Z. (2020, May). IoT Device Firmware Update over LoRa: The Blockchain Solution. In 2020 16th International Conference on Distributed Computing in Sensor Systems (DCOSS) (pp. 404-411). IEEE.</li> <li>3. Christodoulou, P., &amp; Christodoulou, K. (2020, April). A Decentralized Voting Mechanism: Engaging ERC-20 token holders in decision-making. In 2020 Seventh International Conference on Software Defined Systems (SDS) (pp. 160-164). IEEE.</li> <li>4. Christodoulou, P., Lestas, M., &amp; Andreou, A. S. (2013, September). A dynamic Web Recommender System using Hard and Fuzzy K-modes clustering. In IFIP International Conference on Artificial Intelligence Applications and Innovations (pp. 40-51). Springer, Berlin, Heidelberg.</li> <li>5. Christodoulou, P. (2017). Designing and evaluating intelligent context-aware recommender systems: methodologies and applications (Doctoral dissertation, Department of Electrical Engineering and Computer Engineering and Informatics).</li> <li>6. Christodoulou, P., Christodoulou, K., &amp; Andreou, A. (2018). A decentralized application for logistics: Using blockchain in real-world applications. The</li> </ol>	<p>Papers 1,2,3,4,5 and 6 contribute to all CLOs.</p>
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	Cyprus Review, 30(2), 181-193.	
<b>CS351</b> Distributed Systems	<ol style="list-style-type: none"> <li>1. Christodoulou, P., Christodoulou, K., &amp; Andreou, A. (2018). A decentralized application for logistics: Using blockchain in real-world applications. The Cyprus Review, 30(2), 181-193.</li> <li>2. Zinonos, Z., Christodoulou, P., Andreou, A., &amp; Chatzichristofis, S. (2019, May). Parkchain: An iot parking service based on blockchain. In 2019 15th International Conference on Distributed Computing in Sensor Systems (DCOSS) (pp. 687-693). IEEE.</li> <li>3. Anastasiou, A., Christodoulou, P., Christodoulou, K., Vassiliou, V., &amp; Zinonos, Z. (2020, May). Iot device firmware update over lora: The blockchain solution. In 2020 16th International Conference on Distributed Computing in Sensor Systems (DCOSS) (pp. 404-411). IEEE.</li> <li>4. Christodoulou, K., Christodoulou, P., Zinonos, Z., Carayannis, E. G., &amp; Chatzichristofis, S. A. (2020, May). Health information exchange with blockchain amid COVID-19-like pandemics. In 2020 16th International Conference on Distributed Computing in Sensor Systems (DCOSS) (pp. 412-417). IEEE.</li> <li>5. Christodoulou, P., &amp; Christodoulou, K. (2020, April). A Decentralized Voting Mechanism: Engaging ERC-20 token holders in decision-making. In 2020 Seventh International</li> </ol>	<p>My research covers in depth the analysis, design and implementation of distributed p2p applications which constitute main elements of CS351.</p> <p>Papers 1,2,3,4 and 5 contribute to all CLOs.</p>

	Conference on Software Defined Systems (SDS) (pp. 160-164). IEEE.	
<b>CSE05</b> Data Science & Big Data	<ol style="list-style-type: none"> <li>1. Chatzis, S. P., Christodoulou, P., &amp; Andreou, A. S. (2017, August). Recurrent latent variable networks for session-based recommendation. In Proceedings of the 2nd Workshop on Deep Learning for Recommender Systems (pp. 38-45).</li> <li>2. Christodoulou, P., Christoforou, A., &amp; Andreou, A. S. (2017, July). Improving the performance of classification models with fuzzy cognitive maps. In 2017 IEEE International Conference on Fuzzy Systems (FUZZ-IEEE) (pp. 1-6). IEEE.</li> <li>3. Christodoulou, P., Lestas, M., &amp; Andreou, A. S. (2014). Applying hard and fuzzy k-modes clustering for dynamic web recommendations. Engineering Intelligent Systems.</li> <li>4. Christodoulou, P., Chatzis, S. P., &amp; Andreou, A. S. (2018, July). A Recurrent Latent Variable Model for Supervised Modeling of High-Dimensional Sequential Data. In 2018 Innovations in Intelligent Systems and Applications (INISTA) (pp. 1-9). IEEE.</li> </ol>	<p>My research covers in depth the analysis and visualization of various datasets which constitute main elements of CSE05.</p> <p>Papers 1,2,3 and 4 contribute to all CLOs.</p>

**Full Name:** Dr Konstantinos Zagoris

**PhD Discipline:** PhD in Image Analysis

**Research Topic:** Content and Metadata Based Image Document Retrieval

Course Code/Title	Publications	Relationship between research and teaching
<b>CS112</b> Programming Principles I	<ol style="list-style-type: none"> <li>1. K. Zagoris and I. Pratikakis, «Bio-Inspired Modeling for the Enhancement of Historical Handwritten Documents», 2017 14th IAPR International Conference on Document Analysis and Recognition (ICDAR), Kyoto, Japan, 2018, pp. 1395-1403.</li> <li>2. K. Zagoris, I. Pratikakis and B. Gatos, «Unsupervised Word Spotting in Historical Handwritten Document Images Using Document-Oriented Local Features», in IEEE Transactions on Image Processing, vol. 26, no. 8, pp. 4032-4041, Aug. 2017</li> <li>3. K. Zagoris, I. Pratikakis, and B. Gatos. "A Framework for Efficient Transcription of Historical Documents Using Keyword Spotting", In Proceedings of the 3rd International Workshop on Historical Document Imaging and Processing (HIP '15),Gammarth, Tunisia, 2015.</li> <li>4. A. Papandreou, B. Gatos and K. Zagoris, "An Adaptive Zoning Technique for Word Spotting Using Dynamic Time Warping", 2016 12th IAPR Workshop on Document Analysis Systems (DAS), Santorini, pp. 387-392, 2016</li> </ol>	<p>My research covers in depth the development of various programming approaches that constitutes the main element of CS112.</p> <p>Papers 1,2,3 and 4 contribute to all CLOs</p>
<b>CS121</b> Programming Principles II	<ol style="list-style-type: none"> <li>1. K. Zagoris and I. Pratikakis, «Bio-Inspired Modeling for the Enhancement of Historical Handwritten Documents», 2017 14th IAPR International Conference on Document Analysis and Recognition (ICDAR), Kyoto, Japan, 2018, pp. 1395-1403.</li> <li>2. K. Zagoris, I. Pratikakis and B. Gatos, «Unsupervised Word Spotting in Historical Handwritten Document Images Using Document-Oriented Local Features», in IEEE Transactions on Image Processing, vol. 26, no. 8, pp. 4032-4041, Aug. 2017</li> <li>3. G. Barlas, K.Zagoris and I.Pratikakis, «Handwritten keyword Spotting . The</li> </ol>	<p>My research covers in depth the development of various programming approaches that constitutes the main element of CS121.</p> <p>Papers 1,2,3, 4 and 5 contribute to all CLOs</p>

	<p>Query by Example (QbE)». Handwriting: Recognition, Development and Analysis. Chapter 11. Nova Science Publishers, Inc.; 2017 Jul 21</p> <ol style="list-style-type: none"> <li>4. K. Zagoris, I. Pratikakis, and B. Gatos. "A Framework for Efficient Transcription of Historical Documents Using Keyword Spotting", In Proceedings of the 3rd International Workshop on Historical Document Imaging and Processing (HIP '15),Gammarth, Tunisia, 2015.</li> <li>5. A. Papandreou, B. Gatos and K. Zagoris, "An Adaptive Zoning Technique for Word Spotting Using Dynamic Time Warping", 2016 12th IAPR Workshop on Document Analysis Systems (DAS), Santorini, pp. 387-392, 2016</li> </ol>	
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**Full Name:** Dr Kakoulli Elena

**PhD Discipline:** PhD in Computer Engineering and Informatics

**Research Topic:** Development of methodologies to enhance the performance of networks-on-chips in Chip Multiprocessor architectures

Course Code/Title	Publications	Relationship between research and teaching
<b>CS352</b> <b>Software Project Management</b>	No directly related publications	
<b>CS123</b> <b>Computer Architecture I</b>	<ol style="list-style-type: none"> <li>1. H. Herodotou and E. Kakoulli. Automating Distributed Tiered Storage Management in Cluster Computing. Proc. of VLDB Endowment (PVLDB), Vol. 13, No. 1, pp. 43-56, September 2019.</li> <li>2. E. Kakoulli, N. D. Karmiris, and H. Herodotou. OctopusFS in Action: Tiered Storage Management for Data Intensive Computing. Demo, Proc. of VLDB Endowment (PVLDB), Vol. 11, No. 12, pp. 1914-1917, August 2018.</li> <li>3. E. Kakoulli and H. Herodotou. OctopusFS: A Distributed File System with Tiered Storage Management. In Proc. of the ACM Intl. Conf. on Management of Data (SIGMOD '17), May 2017.</li> <li>4. Elena Kakoulli, Vassos Soteriou, Charalambos Koutsides, Kyriacos Kalli. "Silica-Embedded Silicon Nanophotonic On-Chip Networks." In IEEE Transactions on Computer-Aided Design (TCAD) of Integrated Circuits and Systems,</li> </ol>	<ul style="list-style-type: none"> <li>• Paper 4 contributes to CLO1</li> <li>• Paper 5 contributes to CLO1 and CLO2</li> <li>• Paper 6 contributes to CLO1 and CLO2</li> </ul>

	<p>Vol. 36, No. 6, pp. 978-991, June 2017.</p> <p>5. Vassos Soteriou, Theocharis Theocharides, Elena Kakoulli. "A Holistic Approach Towards Intelligent Hotspot Prevention in Network-on-Chip-Based Multicores." In IEEE Transactions on Computers (TOC), Vol. 65, No. 3, pp. 819-833, March 2016.</p> <p>6. Elena Kakoulli, Vassos Soteriou, Theocharis Theocharides. "Intelligent Hotspot Prediction for Network-on-Chip-Based Multicore Systems." In IEEE Transactions on Computer-Aided Design (TCAD) of Integrated Circuits and Systems, Vol. 31, No.3, pp. 418-431, March 2012.</p>	
<b>CSE14</b> <b>Computer Architecture II</b>	<p>1. Elena Kakoulli, Vassos Soteriou, Charalambos Koutsides, Kyriacos Kalli. "Silica-Embedded Silicon Nanophotonic On-Chip Networks." In IEEE Transactions on Computer-Aided Design (TCAD) of Integrated Circuits and Systems, Vol. 36, No. 6, pp. 978-991, June 2017.</p> <p>2. Vassos Soteriou, Theocharis Theocharides, Elena Kakoulli. "A Holistic Approach Towards Intelligent Hotspot Prevention in Network-on-Chip-Based Multicores." In IEEE Transactions on Computers (TOC), Vol. 65, No. 3, pp. 819-833, March 2016.</p>	<ul style="list-style-type: none"> <li>• Paper 1 contributes to CLO3</li> <li>• Paper 2 contributes to CLO1 and CLO3</li> <li>• Paper 3 contributes to CLO1 and CLO3</li> </ul>

	3. Elena Kakoulli, Vassos Soteriou, Theodoris Theodorides. "Intelligent Hotspot Prediction for Network-on-Chip-Based Multicore Systems." In IEEE Transactions on Computer-Aided Design (TCAD) of Integrated Circuits and Systems, Vol. 31, No.3, pp. 418-431, March 2012.	
<b>CSE11 Human Computer Interaction</b>	1. E. Kakoulli, N. D. Karmiris, and H. Herodotou. OctopusFS in Action: Tiered Storage Management for Data Intensive Computing. Demo, Proc. of VLDB Endowment (PVLDB '18), Vol. 11, No. 12, pp. 1914-1917, August 2018.	<ul style="list-style-type: none"> <li>• Paper 1 contributes to CLO4</li> </ul>
<b>CS124 Management Information Systems</b>	No directly related publications	
<b>CS244 Computer Graphics</b>	No directly related publications	

**Full Name:** Salomi Evripidou

**PhD Discipline:** Computer science

**Research Topic:** Educational Robotics

Course Code/Title	Publications	Relationship between research and teaching
<b>CS231</b> Fundamentals of Database Systems	1. S. Evripidou, A. Amanatiadis, K. Christodoulou, and S. A. Chatzichristofis, "Introducing Algorithmic Thinking and Sequencing Using Tangible Robots.", «IEEE Transactions on Learning Technologies», 2021 Feb 9, 14(1):93-105.	Papers 1 contribute to CLO1, CLO2, CLO3, CLO4, CLO5.
<b>CSE10</b> Robotics and Computer Vision	1. S. Evripidou, K. Georgiou, L. Doitsidis, A.A. Amanatiadis, Z. Zinonos, S.A. Chatzichristofis, "Educational Robotics: Platforms, Competitions and Expected Learning Outcomes" IEEE Access, 8, 2020, pp.219534-219562 2. S. Evripidou, A. Amanatiadis, K. Christodoulou, and S. A. Chatzichristofis, "Introducing Algorithmic Thinking and Sequencing Using Tangible Robots.", «IEEE Transactions on Learning Technologies», 2021 Feb 9, 14(1):93-105.	My research activities have been focused on robotics and issues associated with the operation of robotic systems and computer vision which constitute main elements of CSE10.  Papers 1 and 2 contribute to all CLOs.
<b>CS122</b> Data Structures	1. S. Evripidou, A. Amanatiadis, K. Christodoulou, and S. A. Chatzichristofis, "Introducing Algorithmic Thinking and Sequencing Using Tangible Robots.", «IEEE Transactions on Learning Technologies», 2021 Feb 9, 14(1):93-105.	Papers 1 contributes to CLO1, CLO2, CLO4.
<b>CS243</b> Advanced Databases Concepts	No directly related publications	
<b>CS241</b> Algorithms & Complexity	1. S. Evripidou, A. Amanatiadis, K. Christodoulou, and S. A. Chatzichristofis, "Introducing Algorithmic Thinking and Sequencing Using Tangible Robots.", «IEEE Transactions on Learning Technologies», 2021 Feb 9, 14(1):93-105.	My research covers different topics on algorithms and complexity which constitutes the main element CS241.  Paper 1 contributes to CLO1, CLO2, CLO3, CLO6

**Full Name:** Dr Christos Papademitriou

**PhD Discipline:** International Human Resource Management, Leadership, Management, Entrepreneurship, Marketing

**Research Topic:** Investigating the Impact of Sequential Cross-Cultural Training on the Level of Sociocultural and Psychological Adjustment of Expatriate Managers

Course Code/Title	Publications	Relationship between research and teaching
<b>BUSN 100</b> Introduction to Business	<ol style="list-style-type: none"> <li>1. "International Human Resource Management: Sequential Cross Cultural Training – Sociocultural and Psychological Adjustment", New York: Nova Science Publishers, ISBN: 978-1-53616-947-8, 2020.</li> <li>2. "Intermediate Inclusive leader. Creating cooperation networks", 16th European Conference on Management Leadership and Governance, EM-Normandie Business School, Oxford, UK, October 26-27, 2020.</li> <li>3. "The Principles of Entrepreneurship and Innovation in Local SME's", International Journal of Management and Business Studies, Vol. 10, No. 3, 2020.</li> <li>4. "Intermediate Inverted Leadership: the Inclusive Leader's Model", International Journal of Leadership in Education, DOI: 10.1080/13603124.2019.1623925, 2019.</li> <li>5. "E-marketing in Hospitality Industry: Foundations and Strategies", International Journal of Management and Business Studies, Vol. 7, No. 1, pp. 50-54, 2017</li> </ol>	One of the main CLOs of the BUSN 100 is to list the functions of Human Resources Management. My research covers different aspects of business such as HRM, leadership, management, marketing and entrepreneurship, which constitutes the main element of BUSN 100.

**Full Name:** Dr Christos Christodoulou-Volos

**PhD Discipline:** Research in broad field of macroeconomics and financial economics, including the problem of pricing and hedging of financial assets, decisions making under uncertainty, and the application of econometric models.

**Research Topic:** A contribution to the ongoing debate concerning long memory and persistence in macroeconomic and international economic time series.

Course Code/Title	Publications	Relationship between research and teaching
<b>FINA200</b> Financial Theory <b>FINA301</b> Corporate Finance <b>FINA400</b> International Financial Management	<ol style="list-style-type: none"> <li>1. Allowance for Doubtful Accounts and Earning Management: An Empirical Study of Chinese Listed Companies, Journal of Finance and Investment Analysis, Vol. 9 (3), pp. 51-69 (2020).</li> <li>2. "Financial Crisis and Capital Adequacy Ratio: A Case Study for Cypriot Commercial Banks," Journal of Applied Finance and Banking, Vol. 8 (3), pp. 87-109 (2019). (w/ A. Hadjixenophontos</li> <li>3. "Empirical Determinants of the Non-Performing Loans in the Cypriot Banking System," Journal of Finance and Investment Analysis, Vol. 6 (4), pp. 1-20 (2017). (w/ A. Hadjixenophontos</li> <li>4. "Predictability of Foreign Exchange Rates with the AR(1) Model", Journal of Applied Finance and Banking, Vol. 7 (4), pp. 39-58</li> </ol>	<p>My research covers different aspects of applied financial issues that meet CLO2, CLO3, and CLO5 of the Financial Theory (FINA200) and CLO2 and CLO6 of the Corporate Finance course (FINA301). One of the main CLOs of International Financial Management (FINA400) is to predict foreign exchange rates. My research is dealing with this issue which I present and analyze at this course. Additionally, my research covers CLO1, CLO2, CLO4, and CLO5 of FINA400.</p>
<b>ECON101</b> Principles of Microeconomics <b>ECON102</b> Principles of Macroeconomics	<ol style="list-style-type: none"> <li>1. "The Relationship between Real GDP and Unemployment in Cyprus: An Unobserved Components Model Approach", Journal of Applied Economic Sciences (JAES), Vol. X, 8 (38), pp. ..1286 (2015). (w/ A. Hadjixenophontos)</li> <li>2. "An Unobserved Components Model for U.S. Real GDP," The Cyprus Journal of Science, Vol. 12 (2014).</li> </ol>	<p>My research covers different aspects of empirical macroeconomic that meet CLO2 and CLO4 of the Principles of Microeconomics course (ECON101) and CLO2, CLO5, and CLO6 of the Principles of Macroeconomics course (ECON102). They constitute the main elements of the economic courses that I teach at NUP.</p>

**Full Name:** Dr Andreas Masouras

**PhD Discipline:** PhD in Entrepreneurship and Marketing in Small and Medium-Sized Enterprises

**Research Topic:** Entrepreneurship and Competitiveness through the lens of the Institutional Analysis: The Case of Cyprus

Course Code/Title	Publications	Relationship between research and teaching
<b>BUSN104</b> Principles of Marketing <b>BUSN207</b> Marketing Management <b>BUSN304</b> Marketing Research <b>BUSN302</b> Consumer Behaviour	<ol style="list-style-type: none"> <li>1. Masouras, A. (2019). "Young Entrepreneurship in Cyprus: An institutional analysis", The Małopolska School of Economics in Tarnów Research Papers Collection [under publication, accepted]. (indexed: Copernicus).</li> <li>2. Masouras, A., and Papademetriou, C. (2018) "Digital Consumer Behaviour in Cyprus: From Uses and Gratifications Theory to 4C's Online Sopping Approach", Journal of Advertising and Public Relations, Vol.1, No. 1, pp. 32-42</li> <li>3. Siakalli, M., Masouras, A., and Papademetriou, C. (2017) "E-marketing in Hospitality Industry: Foundations and Strategies", International Journal of Management and Business Studies, Vol. 7, No. 1, pp.50-54</li> <li>4. Siakalli, M., Masouras, A., and Papademetriou, C. (2015) "Understanding Online News: Uses and Gratifications of Mainstream News Sites and Social Media", International Journal of Strategic Innovative Marketing, Vol. 2, No. 3, pp. 1-13.</li> <li>5. Masouras, A. (2020). "Innovation in Small and Medium-sized Enterprises". In: Masouras, A., and Maris, G., Entrepreneurial Development and Innovation in Family Businesses and SMEs. IGI Global.</li> <li>6. Masouras, A., Komodromos, I., and Papademetriou, C. (2019). "Cyprus's Wine Market: Influencing</li> <li>7. Factors of Consumer Behaviour as Part of Destination Marketing". In: Kavoura, A., Kefallonitis, E., and Giovanis, A., Strategic Innovative Marketing and Tourism. Springer. Proceedings in</li> </ol>	<p>My research covers different aspects of entrepreneurship and marketing. Specifically, I deal with the study and development of marketing mixes in small and medium enterprises</p>

	<p>Business and Economics. Springer, Cham.</p> <p>8. Sophocleous, H., Masouras, A., and Papademetriou, C. (2019). "Brand as a Strategic Asset for Cultural Organisations: A Proposal for the Forthcoming Cultural Institution of Pafos". In: Kavoura, A., Kefallonitis, E., and Giovanis, A., Strategic Innovative Marketing and Tourism. Springer. Proceedings in Business and Economics. Springer, Cham</p> <p>9. Siakalli, M., Masouras, A., and Papademetriou, C. (2017). "e-Marketing in the Hotel Industry: Marketing Mix Strategies". In: Kavoura, A., Sakas, D., Tomaras, P. (eds), Strategic Innovative Marketing. Springer. Proceedings in Business and Economics. Springer, Cham.</p>	
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**Full Name:** Dr Michailina Siakalli

**PhD Discipline:** PhD in Probability and Statistics

**Research Topic:** Stability properties of Stochastic Differential Equations driven by Lévy noise.

Course Code/Title	Publications	Relationship between research and teaching
<b>STAT103</b> Statistics I	<ol style="list-style-type: none"> <li>1. Siakalli M., Masouras A. (2020) "Factors That Influence Tourist Satisfaction: An Empirical Study in Pafos. " . In: Kavoura A., Kefallonitis E., Theodoridis P. (eds) Strategic Innovative Marketing and Tourism. Springer Proceedings in Business and Economics. Springer, Cham DOI <a href="https://doi.org/10.1007/978-3-030-36126-6_51">https://doi.org/10.1007/978-3-030-36126-6_51</a></li> <li>2. Siakalli M., Masouras A. and Papademetriou C., (2017) "E-marketing in Hospitality Industry: Foundations and Strategies" International Journal of Business Studies &amp; Management ( IJMBS) Vol. 7, Issue 1, pp.50-54, version Jan-March 2017</li> </ol>	My research along with my PhD allows me to have the appropriate background to teach courses in quantitative methods. My research includes data analysis and statistical techniques applied in management/business problems that are included in the context of the courses that I teach. More precisely statistical techniques such as hypothesis testing, applications of probability distributions are applied in my research and constitute one of the main learning outcomes of STAT103 (CLO4, CLO5).
<b>MATH103</b> Introduction to Mathematics	<ol style="list-style-type: none"> <li>1. Stochastic Stabilization of Dynamical Systems using Lévy noise (co-author Applebaum D.), Stochastics and Dynamics 10, 509-27 (2010)</li> </ol>	The course is an introduction to the mathematical concepts of calculus which will help students to follow more advanced topics in other courses. My research includes advance mathematical concepts such as stochastic differential equations, derivatives, probability theory which allows me to have the appropriate background to teach this course (CLO3).

**Full Name:** Dr Stelios Charalambides

**PhD Discipline:** PhD in Topic in Torsion Theory

**Research Topic:** Generalization of several results from Ring Theory to the Torsion Theory setting

Course Code/Title	Publications	Relationship between research and teaching
<b>CS 233</b> Linear Algebra	<ol style="list-style-type: none"> <li>1. S. A. Charalambides, P. A. Damianou and C. A. Evripidou, A Construction of Generalized Lotka–Volterra Systems Connected with <math>\mathfrak{sl}(C)</math>, Lie Theory and Its Applications in Physics, Springer Proceedings in Mathematics &amp; Statistics, vol. 111, 323 – 330, Springer Japan, (2014).</li> <li>2. S. A. Charalambides, P. A. Damianou and C. A. Evripidou, On generalized Volterra systems, Journal of Geometry and Physics, vol. 87, 86 – 105, Elsevier, (2015).</li> <li>3. S. Charalambides and P. Damianou, <math>\mathfrak{so}(p,q)</math> Toda Systems, Physica D: Nonlinear Phenomena, vol. 248, 33 – 43, Elsevier, (2013).</li> </ol>	My research along with my PhD allows me to have the appropriate background to teach mathematical courses.

**Full Name:** Dr Panagiotis Stylianidis

**PhD Discipline:** PhD in Structural Analysis

**Research Topic:** Progressive collapse response of steel and composite buildings

Course Code/Title	Publications	Relationship between research and teaching
<b>CS355</b> Computational Numerical Analysis	<ol style="list-style-type: none"> <li>1. Stylianidis PM, Nethercot DA, Izzuddin BA and Elghazouli AY, "Study of the mechanics of progressive collapse with simplified beam models", Engineering Structures, 2016, Vol. 117, pp. 287-304.</li> <li>2. Stylianidis PM, Nethercot DA, Izzuddin BA and Elghazouli AY, "Robustness assessment of frame structures using simplified beam and grillage models", Engineering Structures, 2016, Vol. 115, pp. 78-95.</li> <li>3. Stylianidis PM, Nethercot DA, Izzuddin BA and Elghazouli AY, "Modelling of beam response for progressive collapse analysis", Structures, 2015, Vol. 3, pp. 137-152.</li> <li>4. Stylianidis PM and Nethercot DA, "Modelling of connection behaviour for progressive collapse analysis", Journal of Constructional Steel Research, 2015, Vol. 113, pp. 169-184.</li> </ol>	<p>Research interests lie in the subject area of structural robustness, that is the behaviour of structures under extreme loading conditions. Main objective is the development of analytical and simplified methods for describing structural performance. This involves extensive application of computational and numerical approaches.</p>

**Full Name:** Dr Ifigenia Efthimiou

**PhD Discipline:** PhD in Statistics - Design and Analysis of Experiments

**Research Topic:** Statistical Methods, Statistics and Data Analysis, Factorial Designs, Statistical Experimental Designs, Computer Experiments, Latin hypercube Designs, Linear Models.

Course Code/Title	Publications	Relationship between research and teaching
<b>CSTHRM</b> Research Methods	<ol style="list-style-type: none"> <li>1. Ifigenia Efthimiou, Stelios D. Georgiou, and Min-Qian Liu. (2014). Construction of nearly orthogonal Latin hypercube designs <i>Metrika</i>.</li> <li>2. Georgiou, S.D. and Efthimiou, I. (2012). Some classes of orthogonal Latin hypercube designs. <i>Statist. Sinica</i>.</li> </ol>	My research along with my PhD allows me to have the appropriate background to teach courses in Research methods. My research includes Statistical Methods, Data Analysis and Statistical techniques that are included in the context of the course that I teach.

**Full Name:** Dr Lefteris Zacharioudakis

**PhD Discipline:** PhD in Electrical Engineering- Methods and tools for increasing the efficiency of user identification in distributed systems.

**Research Topic:** Cybersecurity, Information Security

Course Code/Title	Publications	Relationship between research and teaching
<b>CS363</b> Principles of Cybersecurity	<ol style="list-style-type: none"><li>1. Stirenko, S., Markovsky, O., Zacharioudakis, L., &amp; Mishenko, L. Method of accelerated calculation of modular exponent 2017, pp. 118 – 122)</li><li>2. Markovsky, O., Zacharioudakis, L., Fedotov, Methods of strict identification of remote subscribers on the basis of standardized cypher blocks and hash transformations, 2017, pp. 161 – 171</li><li>3. Markovsky, O., Zacharioudakis, L., Maksimuk, V., Galois fields algebra utilization for implementation of the conception of zero-knowledge under identification and authentication of remote users, Elektron. Model, 2017, 39(6) ), pp.33-46, doi.org/10.15407/emodel.39.06.033</li></ol>	<p>Research interests lie in the subject area of cybersecurity, cryptography and information security.</p> <ul style="list-style-type: none"><li>• Paper 1, contributes to CLO 4</li><li>• Paper 2 contributes to CLO 3, and CLO 4</li><li>• Paper 3 contributes to CLO 3, CLO 4 , CLO 5</li></ul>