Kaushal Kumar Bhagat

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Advanced Technology Development Centre,
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PERSONAL DATA

Citizenship: India
Place of Birth: Panagarh, West Bengal, India

EDUCATION

2013-2016	Ph.D. (Educational Technology), National Taiwan Normal University, Taiwan
2010-2012	M.Sc. (Mathematics), Utkal University, India
2006-2010	Integrated B.Sc-B.Ed (Mathematics/Education), Regional Institute of Education, India

PROFESSIONAL EXPERIENCE

2022-	Consultant, UNESCO
2021-	Member, National Focus Group on Technology in Education (Ministry of Education, India)
2019-	Consultant, Commonwealth of Learning
2018-	Assistant Professor, Indian Institute of Technology, Kharagpur, India
2017-2019	Consultant, Netdragon Websoft
2016-2018	Postdoctoral researcher, Smart Learning Institute, Beijing Normal University
2014-2016	Research assistant, National Taiwan Normal University, Taiwan
2012-2013	Trained Graduate Teacher (TGT), Mathematics, Demonstrative Multipurpose School, Bhubaneswar, India
2010-2012	Volunteer teacher, Mathematics, Children's Centre of Integral Education, Bhubaneswar, India

HONORS & AWARDS

2022	Excellence in Distance Education Award (EDEA) by the Commonwealth of Learning (COL), Canada
2021	Best Serious Game Innovation Award at the Serious Games Showcase & Challenge, USA
2020	Early Career Researcher Award (ECRA) by Asia-Pacific Society for Computers in Education (APSCE)
2018	Outstanding Reviewer Award by ETR&D (AECT)
2018	Outstanding Reviewer Award by Computers& Education

2018	IEEE TCLT Early Career Researcher Award
2015	NTNU International Outstanding Achievement Award
2015	Japan Student Services Organization (JASSO) fellowship
2013-2014	NTNU International fellowship
2006-2010	NCERT Merit Scholarship

COMPUTER SKILLS/ OTHER QUALIFICATIONS

Software	SPSS, SAS, and Mplus
Certificate	Central Teacher Eligibility Test (CTET)

EDITORIAL BOARD MEMBER

2021-	Editorial Board Member, *Educational Technology Research and Development*
2021-	Editorial Board Member, *Educational Technology and Society*
2020-	Editor-in-Chief, *Contemporary Educational technology*
2020	Guest Editor, *Educational Technology and Society*
2019-	Associate Editor, *British Journal of Educational Technology*
2017-	Consulting editor, *Educational Technology Research and Development*

PROFESSIONAL SERVICE & ACTIVITIES

2020-	Reviewer, *IEEE Transactions on Learning Technologies*
2019-	Reviewer, *Research and Practice in Technology Enhanced Learning*
2019	Program Board member, 7th International Conference on Learning and Collaboration Technologies
2019-	Reviewer, *Journal of Educational Computing Research*
2019	Program Committee Member, 12th International Workshop on Social and Personal Computing for Web-Supported Learning Communities (SPeL 2019)
2019	Program Committee Member, 10th International Conference on Technology for Education (IEEE T4E 2019)
2019	Publication Co-Chair, IEEE International Workshop on Advanced E-Learning 2019 (AEL 2019)
2019-	Article editor, *Sage open*
2019-	Editorial Board member, *British Journal of Educational Technology*
2019	Program Committee Member, 18th IEEE International Conference on Advanced Learning Technologies (ICALT) conference
2018-	Reviewer, *International Journal of Smart Technology and Learning*
2018	Program Committee Member, 9th International Conference on Technology for Education (IEEE T4E 2018)
2018-	Reviewer, *Asia Pacific Journal of Education*
2018-	Reviewer, *Computers & Education*
2018-	Reviewer, *Interactive Learning Environments*
2018-	Reviewer, *Smart Learning Environments*

2018 Organizing committee member, The 3rd US-China Smart Education Conference
2018 Publication Co-Chair, IEEE International Workshop on Advanced E-Learning 2018 (AEL 2018)
2017- Reviewer, *Australasian Journal of Educational Technology*
2017- Reviewer, *Journal of Computing in Higher Education*
2018 Program Committee Member, 18th IEEE International Conference on Advanced Learning Technologies (ICALT) conference
2018 Program Committee Member, Society for Information Technology & Teacher Education (SITE) conference
2017 Invited Reviewer, Special issue of *Educational Technology & Society* on Authentic edutainment with advanced technologies
2017 Workshop organizer, *Applying eye-tracking method to explore science learning*
2017 Mentor, Doctoral consortium, 17th IEEE International Conference on Advanced Learning Technologies - ICALT2017
2017- Reviewer, *Educational Technology Research and Development*
2017- Reviewer, *British Journal of Educational Technology*
2017- Reviewer, *EURASIA Journal of Mathematics, Science and Technology Education*
2017- Reviewer, *Teaching Mathematics and Its Applications*
2017- Reviewer, *Instructional Science*
2017 Reviewer, EduCloudComputing'17 conference
2016 Reviewer, Science, Technology, Engineering and Mathematics (STEM) conference
2015- Reviewer, *Journal of Science Education and Technology*
2013 Reviewer, Science, Technology, Engineering and Mathematics (STEM) conference

PROFESSIONAL AFFILIATIONS

The Association for Educational Communications and Technology (AECT)
The Institute of Electrical and Electronics Engineers-Computer Society (IEEE/CS)
Asia-Pacific Society for Computers in Education (APSCE)

FUNDED GRANT PROJECTS

State of the Education Report for lndia 2022: Artificial lntelligence (Al) in Education. Funding agency: UNESCO, New Delhi (Grant no: 4500460683). (2022; Principal Investigator)

Support towards Design and development of MOOC/Blended Learning Self-Paced Course on Introduction to Augmented Reality. Funding agency: Commonwealth Educational Media Centre for Asia (Grant no: C22-017). (2021-2022; Principal Investigator)

Support towards Design and development of 360 Virtual Reality (VR) Educator (Phase -II). Funding agency: Commonwealth Educational Media Centre for Asia (Grant no: 22-ED1-262).

(2021-2022; Principal Investigator)

AI based Spoken Language Learning System. Funding agency: Science and Engineering Research Board (SERB) (Grant no: CRG/2020/000644). (2020-2023; Co-Principal Investigator)

Design and Development of 360 Virtual Reality Teaching and Learning System. Funding agency: Commonwealth Educational Media Centre for Asia (Grant no: C21-080). (2020-2021; Principal Investigator)

Developing the Course entitled "Computational Thinking". Funding agency: Commonwealth of Learning, Canada (Grant no: C21-120). (2020-2021; Principal Investigator)

Investigating the influence of collaborative creation in a 3D environment on the development of pragmatic competence in children with autism spectrum disorder (ASD). Funding agency: Taiwan Ministry of Science and Technology (Grant no: MOST 109-2511-H-003-026). (2020-2021; Co-Principal Investigator)

Design and Development of a Learning Platform to Plot the Gradient of a Scalar Field and Divergence or Curl of a Vector Field. Funding agency: National Yunlin University of Science and Technology (YunTech) (Grant no: yuntech/scc/002). (2020-2021; Principal Investigator)

Design and development of a low-cost immersive 360 VR learning platform. Funding agency: The Research Centre on Interactive Media, Smart System and Emerging Technologies (RISE), Nicosia, Cyprus. (Grant no: IIT/SRIC/ET/DCIV/2020-2021/017). (2020-2021; Principal Investigator)

Design and development of a learning platform for spherical and cylindrical coordinates. Funding agency: National Yunlin University of Science and Technology (YunTech) (Grant no: yuntech/scc/001). (2020-2021; Principal Investigator)

Investigating the Differences in Scientific Epistemic Beliefs, Conceptions of Learning Science and Self-Efficacy of Learning Science between Taiwan and India: A Cross-Country Study. Funding agency: The National Council of Educational Research and Training (Grant no: F. No. 4-51 (787) /2019-DER). (2020-2022; Principal Investigator)

Building the collaboration network for the development of science simulations: resource sharing and collaborative research. Funding agency: Taiwan Ministry of Science and Technology (Grant no: 107-2511-H-008 -003 -MY3). (2019-2021; Co-Principal Investigator)

Analyzing the differences in conceptions and beliefs related to science learning between secondary students from India and Taiwan. Funding agency: National Taiwan Normal University, Taiwan (Grant no: T10907000043). (2019-2020; Co-Principal Investigator)

Research and Evaluation of Blended Learning at Uganda Management Institute. Funding agency: Commonwealth of Learning, Canada (Grant no: C20-160). (2019-2020; Principal Investigator)

Development of Framework and Guidelines for Quality E-content Development Phase II. Funding agency: Commonwealth Educational Media Centre for Asia (Grant no: 20-ED1-262). (2019-2020; Principal Investigator)

The Development and Evaluation of an Augmented Reality Application to Teach Undergraduate Stereochemistry. Funding agency: National Project Implementation Unit (Grant no: NPIU CRS 1-5728391481). (2019-2020; Co- Principal Investigator)

The Design and Evaluation of an Augmented Reality (AR) Application for Middle School Students to Teach Three-Dimensional (3D) Geometry. Funding agency: ISIRD, SRIC, IIT Kharagpur (Grant no: IIT/SRIC/ET/ATG/2019-20/016). (2019-2022; Principal Investigator)

Research and Evaluation of Blended Learning at Universiti Malaysia Sabah. Funding agency: Commonwealth of Learning, Canada (Grant no: C19-160). (2019; Principal Investigator)

Development of Framework and Guidelines for Quality E-content Development Phase I. Funding agency: Commonwealth Educational Media Centre for Asia (Grant no: 06-01-039). (2019; Principal Investigator)

Understanding Mathematical Learning Process in Augmented Reality Environment using Eye-tracking method. Funding agency: China Postdoctoral Science Foundation (Grant no: 27800-212400201). (2017-2018; Principal Investigator)

INVITED SEMINARS & PRESENTATIONS

Bhagat, K. K. (2022, December). Artificial Intelligence (AI) Competency for Teachers in India. **Invited Speaker**: International Forum on artificial intelligence and education 2022, UNESCO, Paris.

Bhagat, K. K. (2022, May). Role of Immersive Technologies in Engineering Education. **Invited Speaker**: SRM Institute of Science and Technology, Chennai, India.

Bhagat, K. K. (2022, March). Augmented Reality and Virtual Reality: A New Paradigm Shift. **Invited Speaker**: National Taiwan Normal University, Taipei, Taiwan.

Bhagat, K. K. (2022, March). Metaverse: Unpacking the Hype. **Invited Speaker**: National Institute of Technology, Durgapur, India.

Bhagat, K. K. (2021, December). Technology, Pedagogy, and Education: The triangle of truisms. **Keynote Speaker**:2021 ASET annual international conference, Changhua, Taiwan.

Bhagat, K. K. (2021, December). Augmented Reality and Virtual Reality: The Disruptive Technologies in the 21st Century. **Invited Speaker**: Kaziranga University, Assam, India.

Bhagat, K. K. (2021, August). Use and Integration of Technology: Tool and Techniques.

Panel Speaker: Central Institute of Educational Technology (CIET), Ministry of education, Govt. of India.

Bhagat, K. K. (2021, March). Emerging Trends in ICT in Education: Disruptive Technologies. **Invited Speaker**: International Conference on ICT in Education, Central Institute of Educational Technology (CIET), Ministry of education, Govt. of India.

Bhagat, K. K. (2021, March).Augmented Reality and Virtual Reality: The Disruptive Technologies in the 21st Century. **Invited Speaker**: International Webinar on "Artificial Intelligence: The Way Forward", State Institute of Educational Technology (SIET), General Education Department, Govt. of Kerala.

Bhagat, K. K., & Spector, J. M. (2020, July). Helping Young Learners Develop Inquiry and Critical Thinking Skills. **Keynote Speaker**: International Conference on Advanced Learning Technologies (ICALT), Tartu, Estonia.

Bhagat, K. K. (2020, May). Role of Emerging Technologies in Enhancing 21st Century Skills. **Keynote Speaker**: The Southern Gujarat Chamber of Commerce & Industry (SGCCI), Varodra, India.

Bhagat, K. K. (2020, March). Augmented Reality and Virtual Reality: Emerging Technologies in the 21st Century. **Invited Webinar**: The Commonwealth of Learning (COL), Vancouver, Canada.

Bhagat, K. K. (2020, March). Design Principles & Emerging Technologies for E-content Development. **Invited Webinar**: The Commonwealth Educational Media Centre for Asia (CEMCA), New Delhi, India.

Bhagat, K. K. (2020, March).Augmented Reality and Virtual Reality: Emerging Technologies in the 21st Century. **Invited Speaker**: The Research Centre on Interactive Media, Smart System and Emerging Technologies (RISE), Nicosia, Cyprus.

Bhagat, K. K. (2020, February). Emerging Technologies and Interactive Content Development: An amalgam. **Keynote Speaker**: ICE21C, Regional Institute of Education, Bhubaneswar, India.

Bhagat, K. K. (2020, January). Augmented and Virtual Reality: The Game Changers. **Keynote Speaker**: The 2020 National Hackathon on Augmented Reality and Virtual Reality, Indian Institute of Technology Bhubaneswar, India.

Bhagat, K. K., & Spector, J. M. (2019, December). Application of Virtual Reality to Enhance Inquiry and Critical Thinking Skills. **Keynote Speaker**: The 2019 International Conference of Science Education in Taiwan, Taipei, Taiwan.

Bhagat, K. K. (2019, December). Augmented and Virtual Reality: The Game Changers. **Invited Speaker**: National Yunlin University of Science and Technology, Yunlin, Taiwan.

Bhagat, K. K. (2019, November). Augmented Reality: The good, The Bad, and The Ugly. **Keynote Speaker**: The 18th International Forum on Educational Technology, Guilin, China.

Bhagat, K. K. (2019, September).Emerging Technologies to Enhance NexGen Science Learning. **Invited Webinar**: Beijing Normal University, Beijing, China.

Bhagat, K. K. (2019, July). Augmented Reality and Virtual Reality for the NexGen Science Learning. **Keynote Speaker**: 2019 Emerging Trends in Digital Visualization and Mapping-ETDVM, Kaziranga University, Assam, India.

Bhagat, K. K. (2019, March). Applications of Emerging Technologies in Formal and Informal Education. Invited Seminar: Thiagarajar College of Engineering, Madurai, Tamilnadu.

Bhagat, K. K. (2019, February). Role of Emerging Technologies in Enhancing Science Learning. **Keynote Speaker**: 2019 International Conference of GloCal Changes and Educational Responses (GCER), Seoul National University, Seoul, South Korea.

Bhagat, K. K. (2018, December).Research and Evaluation of Blended Learning. **Invited talk**: TEL Community of Practice, Commonwealth of Learning, New Delhi, India.

Bhagat, K. K. (2018, June). Academic Writing to Publication: Welcome to Adventure. **Invited Speaker**: School of Education, Hangzhou Normal University, Hangzhou, China.

Bhagat, K. K. (2018, March). Applications of Emerging Technologies in Formal and Informal Education. **Invited Speaker**: Graduate Institute of Digital Learning and Education, National Taiwan University of Science and Technology, Taipei, Taiwan.

Bhagat, K. K. (2018, March). Academic writing and publishing. **Invited Speaker**: Graduate Institute of Science Education, National Taiwan Normal University, Taipei, Taiwan.

Bhagat, K. K. (2018, February).Leveraging the Advantages of Emerging Technologies in Formal and Informal Education. **Invited Speaker**: Institute of Interactive Systems and Data Science, Graz University of Technology, Graz, Austria.

Bhagat, K. K. (2018, February).Augmented Reality and Virtual Reality: Emerging Technologies in the 21st Century. **Invited Speaker**: Faculty of Computer Science and Engineering, Universidad Carlos III de Madrid, Madrid, Spain.

Bhagat, K. K. (2017, December). The Role of Technology in Enhancing Mathematics Learning. **Invited Speaker**: Faculty of Education, Guangxi Normal University. Guilin, China.

Bhagat, K. K. (2017, November). Students' Perceptions towards Online Learning in the 21st century: A Global Perspective. **Invited Speaker**: Interdisciplinary Program in Education Technology, Indian Institute of Technology, Bombay, India.

Bhagat, K. K. (2017, September). The Design and Development of Digital Interactive Globe System (DIGS). **Invited Speaker**: Netdragon Websoft, China.

Bhagat, K. K. (2017, January). The Potentials and Trends of Virtual Reality in Education: A Bibliometric Analysis on Top Research Studies in the last Two Decades. **Invited Speaker**: Graduate Institute of Science education, National Taiwan Normal University, Taiwan.

Bhagat, K. K. (2016, September). Technology-Enhanced Learning: 21st Century Global Perspective. **Invited Speaker**: Center for Educational Technology, Indian Institute of Technology, Kharagpur, India.

CONFERENCE PAPER/POSTER PRESENTATIONS

Ma, S., Bhagat, K., Spector, J., Lin, L., Liu, D., Leng, J., Tiruneh, D., Mancini, J. (2018, October). Developing Inquiry and Critical Thinking Skills for the Next Generation. Paper presented at the Association for Educational Communications and Technology (AECT 2018), Kansas City, Missouri, USA.

Bhagat, K. K., & Spector, J. M. (2018, July). A bibliometric analysis of six years of research on flipped classroom. Paper presented at the 18th IEEE International Conference on Advanced Learning Technologies - ICALT2018, Bombay, India

Yang, F.-Y., & Bhagat, K. K. (2018, March). Exploring the differences in epistemic beliefs in science and reasoning performance between students from Taiwan and India. Poster presented at the 2017 Annual Meeting of the National Association for Research in Science Teaching (NARST), Atlanta, GA, USA.

Bhagat, K. K., & Spector, J. M. (2017, December). Authentic Learning in a Technology-Rich Classroom: Innovative Education in the Classroom. Paper will be presented at the 25th International Conference on Computers in Education (ICCE 2017), Christchurch, New Zealand.

Bhagat, K.K., Chang, C.-Y., & Huang, R. (2017, July). Integrating GeoGebra with TPACK in improving Pre-service Mathematics Teachers' Professional Development. Poster presented at the 17th IEEE International Conference on Advanced Learning Technologies - ICALT2017, Timisoara, Romania.

Bhagat, K.K., Liou, W. K., & Chang, C.-Y. (2017, April). To Use AR (Augmented Reality) or not to use AR in Formative Assessment? A Comparative Study. Poster presented at the 2017 Annual Meeting of the National Association for Research in Science Teaching (NARST), San Antonio, Texas, USA.

Liou, W. K., Bhagat, K.K., & Chang, C.-Y. (2016, November). A Digitally Interactive Globe System (DIGS) Embedded into Earth Science Courses. Paper presented at the European Association for Practitioner Research on Improving Learning (EAPRIL), Porto, Portugal.

Bhagat, K.K., Liou, W. K., & Chang, C.-Y. (2016, April). Highly Interactive Cloud-Classroom (HIC) embedded into Undergraduate Chemistry Course. Poster presented at the 2016 Annual Meeting of the National Association for Research in Science Teaching (NARST), Baltimore, MD, USA.

Bhagat, K. K., Jen, T. H., & Chang, C.-Y. (2015, August). Students' Perceptions towards Online Learning: A Cross-Country analysis. Paper presented at the European Science Education Research Association (ESERA) 2015 International Conference, Helsinki, Finland.

Bhagat, K. K., & Chang, C.-Y. (2015, March). Beyond Flipped Classroom: A Highly Interactive Cloud-Classroom (HIC) embedded in Basic Materials Science Course. Paper presented at the International Joint Seminar and Research Camp program on Natural Sciences (JSRC2015), Niigata, Japan.

Bhagat, K. K., & Chang, C.-Y. (2014, November). Visualizing projectile motion using dynamic mathematical software: GeoGebra. Paper presented at the he International Science Education Conference 2014 (ISEC 2014 Singapore), Singapore.

Bhagat, K. K., & Chang, C.-Y. (2014, November). Application of Augmented Reality (AR) Technology in learning Science concepts. Paper presented at the International Science Education Conference 2014 (ISEC 2014 Singapore), Singapore.

Bhagat, K. K., & Chang, C.-Y. (2014, July). Incorporating GeoGebra into Geometry learning-A lesson from India. Paper presented at the Annual Meeting of the Australian Science Education Research Association (ASERA), Melbourne, Australia.

PUBLICATIONS (*corresponding author)

Referred Journal Articles

Mondal, A. S., Zhu, Y., Bhagat, K. K*., & Giacaman, N. (*in press*). Analysing User Reviews of Interactive Educational Apps: A Sentiment Analysis approach. *Interactive Learning Environments*. **(SSCI)**

Sharma, V., Bhagat, K. K., Huang, H.-H., & Chen, N.-S. (2022). The design and evaluation of an AR-based serious game to teach programming. *Computers & Graphics, 103*, 1-18. doi: https://doi.org/10.1016/j.cag.2022.01.002 **(SSCI)**

Bhagat, K. K., Yang, F.-Y., Cheng, C.-H., Zhang, Y., & Liou, W.-K. (2021). Tracking the process and motivation of math learning with augmented reality. *Educational Technology Research and Development, 69*(6), 3153-3178. doi: 10.1007/s11423-021-10066-9 **(SSCI)**

Bhagat, K. K*. Cheng, C.-H., Koneru, I., Fook, F.-S., & Chang, C.-Y. (2021). Students' Blended Learning Course Experience Scale (BLCES): Development and Validation. *Interactive Learning Environments.* https://doi.org/10.1080/10494820.2021.1946566 **(SSCI)**

Yang, J., Tlili, A., Huang, R., Zhuang, R., & Bhagat, K. K. (2021). Development and Validation of a Digital Learning Competence Scale: A Comprehensive Review. *Sustainability*, *13*(10), 5593. https://doi.org/10.3390/su13105593**(SSCI)**

Bhagat, K. K*. Mishra, S., Dixit, A., & Chang, C.-Y. (2021).Public opinions about online learning during COVID-19: A Sentiment Analysis approach. *Sustainability, 13*(6), 3346. doi:10.3390/su13063346 **(SSCI)**

Ioannou, A., Bhagat, K. K., & Johnson-Glenberg, M. C. (2021). Guest Editorial: Learning Experience Design: Embodiment, Gesture, and Interactivity in XR. *Educational Technology & Society*, *24* (2), 73–76. **(SSCI)**

Chandrakar M. & Bhagat, K. K*. (2020). Development of an Augmented Reality-based Game for the Projectile Motion. *The Physics Teacher. 58*(8), 668-669. **(SSCI)**

Zheng, L., Bhagat, K. K*., Zhen, Y., & Zhang, X. (2020). The Effectiveness of the Flipped Classroom on Students' Learning Achievement and Learning Motivation: A Meta-Analysis. *Educational Technology & Society*, *23* (1), 1–15. **(SSCI)**

Yang, F.-Y. & Bhagat, K. K. (2019). Associations of Epistemic Beliefs in Science and Scientific Reasoning in University Students from Taiwan and India. *International Journal of Science Education.* 41:10, 1347-1365, DOI: 10.1080/09500693.2019.1606960 **(SSCI)**

Bhagat, K. K., Wu, L. Y., & Chang, C.-Y. (2019). The impact of personality on students' perceptions towards online learning. *Australasian Journal of Educational Technology. 35*(4), 98-108. https://doi.org/10.14742/ajet.4162**(SSCI)**

Bhagat, K. K., Liou, W. K., Spector, J. M. & Chang, C.-Y. (2019). To Use Augmented Reality or not in Formative Assessment: A Comparative Study. *Interactive Learning Environments, 27*(5-6), 830-840. doi: 10.1080/10494820.2018.1489857 **(SSCI)**

Liou, W. K., Bhagat, K. K., & Chang, C.-Y. (2018). The Design, Implementation, and Evaluation of a Digital Interactive Globe System Integrated into an Earth Science Course. *Educational technology research and development. 66*(2), 545-561. doi.org/10.1007/s11423-018-9573-2 **(SSCI)**

Bhagat, K. K., & Chang, C.-Y. (2018). Students' Perceptions towards Online Learning: A Cross-Country Analysis. *Eurasia Journal of Mathematics, Science & Technology*

Education, 14(3), 987-995. DOI: https://doi.org/10.12973/ejmste/81151 **(SSCI)**

Zheng, L., Dong, Y., Huang, R., Chang, C.-Y., & Bhagat, K. K. (2018). Investigating the interrelationships among conceptions of, approaches to, and self-efficacy in learning science. *International Journal of Science Education, 40*(2), 139-158. doi: 10.1080/09500693.2017.1402142 *(***SSCI)**

Bhagat, K. K.*, & Spector, J. M. (2017). Formative Assessment in Complex Problem-Solving Domains: The Emerging Role of Assessment Technologies. *Educational Technology & Society*, *20*(4), 312-317. **(SSCI)**

Bhagat, K.K., Subheesh, N.P., Bhattacharya, B., Chang, C.-Y. (2017). The Design and Development of Identification of Students' Misconceptions in Individualized Learning Environment (iSMILE) System. *Eurasia Journal of Mathematics, Science & Technology Education, 13*(1), 19-34. **(SSCI)**

Bhagat, K. K., Liou, W. K., & Chang, C.-Y. (2016). A Cost-Effective Interactive 3D Virtual Reality System Applied to Military Live Firing Training. *Virtual Reality, 20*(2), 127-140. **(SCI)**

Liou, W. K., Bhagat, K. K., & Chang, C.-Y. (2016).Beyond the flipped classroom: A Highly Interactive Cloud-classroom (HIC) embedded into basic materials science courses. *Journal of Science Education and Technology*, *25*(3), 460–473. **(SCI)**

Bhagat, K. K., Chang, C. N., & Chang, C.-Y. (2016).The impact of the flipped classroom on mathematics concept learning in high school. *Educational Technology & Society*, *19*(3), 134-142. **(SSCI)**

Bhagat, K. K., Wu, L. Y., & Chang, C.-Y. (2016). Development and validation of the perception of students towards online learning (POSTOL). *Educational Technology & Society*, *19*(1), 350-359. **(SSCI)**

Bhagat, K. K., & Chang, C.-Y. (2015). Incorporating GeoGebra into Geometry learning-A lesson from India. *Eurasia Journal of Mathematics, Science & Technology Education, 11*(1), 77-86. **(SSCI)**

Conference Proceedings

Huang, H.-H., Sharma, V., Bhagat, K. K., Hsieh, W.-M., & Chen, N.-S. (2021). The Effects of an AR Programming Game on Students' Different Prior Computational Thinking Skills. In Looi, C.K. et al. (Eds.) *Proceedings of the 5th APSCE International Computational Thinking and STEM in Education Conference 2021(CTE-STEM 2021*(pp.81-84). Singapore: National Institute of Education.

Nigam, A., Bhagat, K.K.*, Chandrakar, M., & Goswami, P.K. (2019). Design and Development of an Augmented Reality Tracing Application for Kindergarten students. In Chang, M. et al. (Eds.) *Proceedings of the 10th IEEE International Conference on Technology for Education (T4E 2019)* (pp.240-241). Goa, India: IEEE Computer Society.

Bhagat, K.K.* (2019). Augmented reality research output from1990-2018: A bibliometric analysis. In Chang, M. et al. (Eds.) *Proceedings of the 27th International Conference on Computers in Education (ICCE 2019)* (pp.61-65). Kenting, Taiwan: Asia-Pacific Society for Computers in Education

Sharma, V., Talukder, J., Bhagat, K.K.* (2019). CodAR: An Augmented Reality Based Game to Teach Programming. In Chang, M. et al. (Eds.) *Proceedings of the 27th International Conference on Computers in Education (ICCE 2019)* (pp.600-602). Kenting, Taiwan: Asia-Pacific Society for Computers in Education

Cheng, C. H., Yang, F. Y., Bhagat, K. K*., Liou, W. K., Chang, C. Y., & Zhang, Y.(2018).Investigating the Learning Performance toward Geometry Learning in an Augmented Reality System. In Yang, J. C. et al. (Eds.). *Proceedings of the 26th International Conference on Computers in Education (ICCE 2018)* (pp.337-339). Manila, Philippines: Asia-Pacific Society for Computers in Education. **(SSCI)**

Bhagat, K.K.*, & Spector, J. M. (2018). A bibliometric analysis of six years of research on flipped classroom. In M. Chang, N.-S. Chen, R. Huang, Kinshuk, K. Moudgalya, S. Murthy & D.G. Sampson (Eds). *Proceedings of the18th IEEE International Conference on Advanced Learning Technologies (ICALT 2018)* (pp.27-29). Mumbai, India: IEEE Computer Society. **(SSCI)**

Bhagat, K. K.*, & Spector, J. M. (2017). Authentic Learning in a Technology-Rich Classroom: Innovative Education in the Classroom. In Yang, J. C. et al. (Eds.) *Proceedings of the 25th International Conference on Computers in Education (ICCE 2017)* (pp.14-16). Christchurch, New Zealand: Asia-Pacific Society for Computers in Education.

Bhagat, K.K.*, Chang, C. -Y., & Huang, R. (2017). Integrating GeoGebra with TPACK in improving Pre-service Mathematics Teachers' Professional Development. In M. Chang, N.-S. Chen, R. Huang, Kinshuk, D.G.Sampson & R. Vasiu (Eds). *Proceedings of the17th IEEE International Conference on Advanced Learning Technologies (ICALT 2017)* (pp.313-314). Timisoara, Romania: IEEE Computer Society. **(SSCI)**

Bhagat, K. K*. , & Chang, C.-Y. (2014). Visualizing Projectile motion using a dynamic mathematical software: GeoGebra. *Proceedings of International Science Education Conference* 2014(pp.143-159) (ISSN 2382-5979). Singapore: National Institute of Education.

Book Chapters

Gao, Y., & Bhagat, K. K*. (*in press*). Role of technology in implementing the flipped classroom: A review. In D. Fisher (Ed.), *Routledge Encyclopedia of Education*. London: Taylor & Francis/Routledge

Ma, S., Spector, J. M., Liu, D., Bhagat, K. K., Tiruneh, D., Mancini, J., . . . Kinshuk. (2022). Smart Learning in Support of Critical Thinking: Lessons Learned and a Theoretically and Research-Based Framework. In M. V. Albert, L. Lin, M. J. Spector & L. S. Dunn (Eds.), *Bridging Human Intelligence and Artificial Intelligence* (pp. 309-326). Cham: Springer International Publishing.

Bhagat, K.K*, & Fook, F.S. (2020).Methodological Challenges in Researching the Impact of Technology-Enabled Learning: The Case of Universiti Malaysia Sabah. In S. Mishra & S. Panda (Eds.), *Technology-Enabled Learning: Policy, Pedagogy and Practice* (pp. 119-127). Vancouver: Commonwealth of Learning.

Ma, S., Bhagat, K.K, Spector, J.M.*, Lin, L., Liu, D., Leng, J., Tiruneh, D., & Mancini, J. (2019). Developing Critical Thinking: A Review of Past Efforts as a Framework for a New

Approach for Childhood Learning. In J.M. Spector, B.B. Lockee & M.D. Childress (Eds.), *Learning, Design, and Technology. An International Compendium of Theory, Research, Practice, and Policy.* Cham: Springer International Publishing.

Spector, J. M., & Bhagat, K. K. (2018). Promoting and Assessing Deep Learning Using Technology. In R. Z. Zheng (Ed.), *Strategies for Deeper Learning with Digital Technology* (pp. 37-50). New York: Nova Science Publishers.

Bhagat, K. K., Rodrigo, M. M. T., & Chang, C.-Y. (2018). Current status, challenges and opportunities of Intelligent Tutoring System (ITS) in Developing Countries in Asia. In K. J. Kennedy & J. C.-K. Lee (Eds.), *Routledge International Handbook of Schools and Schooling in Asia* (pp. 382-395). New York: Routledge.

Bhagat, K. K.*, & Huang, R. (2018). Improving Learners' Experiences Through Authentic Learning in a Technology-Rich Classroom. In T.-W. Chang, R. Huang & Kinshuk (Eds.), *Authentic Learning Through Advances in Technologies* (pp. 3-15). Singapore: Springer Singapore.

Liu, D., Bhagat, K. K.*, Gao, Y., Chang, T.-W., & Huang, R. (2017). The Potentials and Trends of Virtual Reality in Education. In D. Liu, C. Dede & J. Richards (Eds.), *Virtual, Augmented, and Mixed Realities in Education* (pp. 105-130). Singapore: Springer Singapore.

Books

Díaz, P., Ioannou, A., Bhagat, K. K. & Spector, J. M. (Eds.) (2019). *Learning in a Digital World - Perspective on Interactive Technologies for Formal and Informal Education.* Singapore: Springer Singapore.

International Technical Reports

Ziesche, S. & Bhagat, K. K. (2022). State of the Education Report for India 2022: Artificial Intelligence in Education. New Delhi, India: UNESCO.

Bhagat, K. K. (2020). The Impact of Blended Learning at the Uganda Management Institute. Burnaby, Canada: COL.

Bhagat, K. K. (2019). The Impact of Technology-Enabled Learning at Universiti Malaysia Sabah. Burnaby, Canada: COL.

Educational Packages

Bhagat, K. K. (2021). Introduction to Augmented Reality, New Delhi: CEMCA.

Bhagat, K. K., & Dasgupta, C. (2021). Computational Thinking for Teachers. Burnaby, Canada: COL.

Bhagat, K. K., Das S. K., & Bhattacharya, B. (2020). Development of Framework and Guidelines for Quality E-content Development, New Delhi: CEMCA.