

Bio

Dr. Vivekanandan Suresh Kumar (vivek.athabasca.ca) – received his doctorate in Computer Science from the U. of Saskatchewan, Canada. Before that, he was Staff Scientist at CDAC Mumbai. Dr. Kumar is internationally recognized in the field of big-data analytics, particularly in learning analytics. He is currently a tenured full professor in the School of Computing and Information Systems at Athabasca University, Canada. His research explores and advances data science to transform the practices of learning, teaching, and training to improve the effectiveness and efficiency of education. Over the past 16 years, he has directed more than \$21M in research funding for collaborative projects in computing, information systems, and education. He is fully invested in building competency-centric, evidence-based cognified learning systems to meet the educational challenges of the twenty-first century as dictated by the fourth industrial revolution.

Dr. Kumar dedicates considerable time and effort to mentoring students and co-authoring papers with them. Over the past 16 years, he has supervised 140 researchers at the postdoctoral, PhD, MSc, and BSc levels. He also infuses research into his teaching at all levels, thereby preparing his students to be well-equipped as researchers in any career into which they venture. His teaching style derives from his 1992 tenure as a United Nations fellow at the Learning Research and Development Centre, U. of Pittsburgh, USA.

He is the President and CEO of Smart Informatics Limited (SIL), a successful university spinoff company specializing in learning analytics solutions for grades K–12, higher learning, and industry. Moreover, Dr. Kumar is currently leading the development of a patent for technology that offers end-to-end nanosecond performance guarantees in real-time video protocols. He has more than 130 refereed publications in journals, book chapters and international conferences.

Workshop brief:

Causal Inferencing with Observational Data for Evidence-based Pedagogy: Adopting AI to Education

Imagine a research engine that, by itself, strives for significant results for your research questions. Recent advances in Observational Study and Causal Modelling techniques avail such a research engine for a novice researcher as well as a seasoned researcher. The engine's research outcomes are formal, rigorous and readily replicable. The engine allows new research questions to be posed even while the data is being collected. It empowers the researcher to dictate the level of rigour in the study and to scale up or down the scope of the study, at will. A single, ongoing study may yield several publications as long as data continues to flow into the engine. Intrigued!? Come attend this hands-on workshop and take home your own autonomous research engine. Visit <http://learninganalytics.ca/research/t4e-2019-workshop/> for more details.