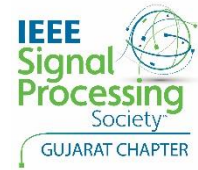


# Report



## Distinguished Lecture talk on “Towards Autonomous Video Surveillance”

Organized under  
IEEE Signal Processing Society, Gujarat Chapter  
C. K. Pithawala College of Engineering and Technology



**Date:** 10<sup>th</sup> January 2020

**Time:** 11:00 AM to 12:30 PM

**Venue:** Seminar Hall, D2 Building, ECC Dept., CKPCET, Surat.

**Speaker:** Dr. Janusz Konrad PhD, McGill University, Montreal, Canada in 1984, Professor, Electrical and Computer Engineering Department, Boston University.

**Coordinator:** Prof. Mita C. Paunwala, Associate professor, ECC Department, CKPCET, Surat.

### Bio-sketch of speaker:



Janusz Konrad received Master's degree from Technical University of Szczecin, Poland in 1980 and PhD degree from McGill University, Montréal, Canada in 1984. He joined INRS-Telecommunications, Montreal as a post-doctoral fellow and, since 1992, as a faculty member. Since 2000, he has been on faculty at Boston University. He is an IEEE Fellow and a recipient of several IEEE and

EURASIP Best Paper awards. He has been actively engaged in the IEEE Signal Processing Society as a member of various boards and technical committees, as well as an organizer of conferences. He has also been on editorial boards of various EURASIP journals. His research interests include video processing and computer vision, stereoscopic and 3-D imaging and displays, visual sensor networks, human-computer interfaces, and cybersecurity.

Department of Electronics and Communication Engineering of CKPCET in association with IEEE SPS, Gujarat Chapter have organized a DL Talk on "**Towards Autonomous Video Surveillance**" for the third and final year UG students under IEEE Signal Processing Society Distinguished Lecture Program. The speaker of the talk was **Prof. Janusz Konrad** PhD, McGill University, Montreal, Canada in 1984, Professor, Electrical and Computer Engineering Department, Boston University. Talk was arranged on 10<sup>th</sup> JANUARY 2020 from 11:00 AM onwards in Seminar Hall, D2 Building, ECC Dept., for the third and final year UG students and faculty members with objective of providing knowledge to researchers for formulating a research problem and thereby providing an optimum solution for the same.

The event was started by brief introduction of speaker by Vice chair SPS, GS **Prof. Mita Paunwala**. After floral welcome of speaker by Principal Sir **Prof. Anish Gandhi**, talk was started. Dr. Konrad highlighted a complete video surveillance processing chain, developed over years at Boston

University, from low-level video analysis to summarization of dynamic events. He focused on three fundamental questions posed in video surveillance: “How to detect anomalous events in a visual scene? How to classify those events? How to represent them succinctly?” In the first part, “behaviour subtraction”, an extension of “background subtraction” to scenes with dynamic backgrounds (e.g., water surface that is notoriously difficult to handle), which can detect complex anomalies in surveillance video was discussed. Then, in order to classify activities within the detected anomalies, activity recognition on covariance manifolds was discussed. Finally, his presentation ended with description of “video condensation”, a computational method to succinctly summarize activities of interest for efficient evaluation by human operator.

A talk was ended by presenting memento to speaker by Head, ECC Department **Prof. Ninad Bhatt** as a token of memory. Chapter chair coordinator **Prof. Chirag Paunwala**, Treasurer SPS GS, **Prof. Neeta Chapatwala**, students, research scholars and faculties from other colleges of Gujarat as well as from CKPCET enjoyed a very informative and technical talk. At the end faculty interaction (includes Head of various department) was held followed by Lunch. Some glimpse of the talk are as under:







Faculty meet



## સી.કે. પીઠાવાલા કોલેજમાં અમેરિકાના પ્રો.કોનાર્ડ પોતાનું રિસર્ચ વર્ક શેર કર્યું

સુરત: સી.કે.પીઠાવાલા કોલેજ ઓફ એન્વિરોનિયરિંગ એન્ડ ટેકનોલોજીના ઇલેક્ટ્રોનિક્સ એન્ડ કોમ્યુનિકેશન ડિપાર્ટમેન્ટે IEEE સિગ્નલ પ્રોસેસિંગ સોસાયટીના ગુજરાત ચેપ્ટર સાથે મળીને ૧૦ જાન્યુઆરીના રોજ ડિસ્ટિંગ્યુઇડ લેક્ચર 'Towards Autonomous video surveillance' નું



આયોજન કર્યું હતું. આ ટોકમાં યુનિવર્સિટી ઓફ બોસ્ટન, USA ના પ્રો. કોનાર્ડ પોતાનું રિસર્ચ વર્ક શેર કર્યું હતું. પ્રો. કોનાર્ડ ને દુનિયાની પ્રખ્યાત IEEE અને EURASIP કોન્ફરન્સમાં ઘણા બેસ્ટ પેપરના એવોર્ડ મળ્યા છે. આટલા અનુભવી પ્રોફેસરને સાંભળવા કોલેજના જુદી જુદી ધ્યાન્યના વિદ્યાર્થીઓ અને પ્રોફેસરોની સાથે સાથે ગુજરાતની બીજી કોલેજના પ્રોફેસર અને રિસર્ચ સ્કોલરોએ પણ ભાગ લીધો હતો. પોતાની ટોકમાં પ્રો. કોનાર્ડએ બોસ્ટન યુનિવર્સિટીમાં ડેવલોપ કરેલી 'video surveillance processing chain' ની વાત કરી હતી. જેમાં તેમણે મુખ્ય ત્રણ વાતો પર ફોકસ કર્યું હતું, ૧) વીડિઓમાંથી અનિયમિત ઇવેન્ટ છે કે નહિ એ શોધવું ૨) અનિયમિત ઇવેન્ટ ને જુદી કઈ રીતે કરવી ૩) અનિયમિત ઇવેન્ટ ને કઈ રીતે દર્શાવવી. ટોકના અંતમાં પ્રોફેસરે ભાવિ એન્જીન્યરના મૂંઝવતા પ્રશ્નોના જવાબ આપ્યા હતા. જેનાથી વિદ્યાર્થીનો ઉત્સાહ વધ્યો હતો.