Report on Scholar in Residence – Erudite program held in Department of Computer Science, Cochin Univeristy of Science and Technology, Cochin, Kerala

Scholar who have visited:

Prof. (Dr.) Mathew J Palakal
Executive Associate Dean
School of Informatics and Computing
Indiana University – Purdue University
Indianapolis, IN, USA

Dates of visit including the travel: 01 December 10 December, 2017 (6 days)

Day 1: 04 December 2017

The department formally welcomed the scholar, followed with a meeting with the teachers. The academic programmes run by the department and the research areas were presented by the head of the department. Mathew introduced the School of Informatics and computing and the activities happening in his school. There were areas of research with mutual interest to CUSAT and Indianapolis. An interaction with the Postgraduate students was arranged immediately after this. Professor has introduced the educational and research possibilities in the Indiana University to the students.

A general lecture on "Big Data and Data Science" has been followed in the afternoon in the International School of Photonics auditorium, CUSAT. The lecture was attended by 110 participants. Students and teachers of other departments were also present. Apart from the teachers from Department of Computer Science. the teachers and students from Department of Computer Applications, Department of Electronics, School of Management Studies, School of Engineering, Dept. Of Instrumentation were present. The lecture started at 2:00 p.m and ended at 4:00 p.m followed by a question-answer session. The audience appreciated the talk and learned new excitements happening in the field of Data Science.

Summary of the talk: Given as an appendix

Day 2: 05 December 2017

The forenoon has been dedicated to the research scholars of the department. Twelve research scholars interacted one to one with the professor and took advice on how to pursue research and come up with useful results. All the scholars expressed the effectiveness of the interaction. Some of the research areas of the students were in tune with the works happening in the School of Informatics, Indiana University. Professor extended the help from the faculty members of his school.

Technical talk on "Text Data Analytics" held in the afternoon. The talk was well received by the teachers and researchers and the students of the department. The research scholars of the Department of Computer Applications were also present. Some teachers from the nearby colleges were also present.

Summary of the talk:

Day 3: 06 December 2017

Prof. Mathew was very much interested to meet and interact with the students of Govt. College of Engineering, Cherthala. The general talk on Data Science was appreciated by the teachers and student community. The undergraduate students were interested especially in pursuing postgraduate studies and research at the Indiana University. Professor has dedicated a session on prospectives on further studies and has given a clear picture on how to get admission in foreign universities. He further elaborated on the grants available and how to grab the grants.

Professor also interacted with the teachers in a separate meeting. He has elaborated on the research areas and possible project ideas in the field of Data Science and Internet of Things.

Day 4: 07 December 2017

A technical talk on "Internet of Things" at School of Engineering, CUSAT was arranged in the forenoon session. The talk had been listened to by more than 150 attendees including students, research scholars and staff of Division of Computer Science, Division of IT and Division of Electronics of School of Engineering. The talk was appropriate and timely since many walks of life are going to be automated with the tiny sensors, computation and communication enabled devices.

Students were interested to discuss further on the higher studies in foreign universities.

A separate meeting with all the teachers of the division of computer science and IT was held immediately after the talk. Prof. Mathew explained the opportunities for research and postdocs programmes in the Indiana University. Teachers clarified many doubts on pursuing further studies and research in a foreign country.

Professor has interacted with research scholars who were working with nearby colleges in the afternoon.

Day 5: 08 December 2017

The day started with a technical talk on "Sentiment Analysis" in the department. The talk was a natural extension of the technical talk "Text Data Analytics" held on day 2. In this talk, many case studies were presented. Clarifications were sought after the talk and Professor elegantly cleared all the doubts raised. The talk was attended by a closed group of 50 participants. Research scholars from Dept. Of Computer Applications and School of Engineering and nearby colleges were also part of the closed group.

Prof. Mathew visited Department of Computer Applications in the campus in the afternoon and addressed the teachers, research scholars and the students of the department. All participants were enthusiastic enough to ask on many research areas in Data Science.

Prof. Mathew was very keen on taking the program one level further. A meeting with higher officials of the University was arranged.

Meeting with Vice Chancellor

Prof. J Letha, Vice Chancellor and Prof. Mathew met at her chamber. Prof. Mathew opened up the possibilities for collaboration. He said his School will be happy to host a couple of research students so as they spend 3 to 6 months there in Indiana University working with Professors there. The expenses including airfare, visa charges and insurance for the student should be met by the University. Vice Chancellor welcomed the idea and assured the support for the students who are travelling from the University to Indiana. Similarly, CUSAT can host and meet the daily charges of any student who is willing to travel to CUSAT.

Meeting with Pro Vice-Chancellor

Prof. P. G. Sankaran, Pro Vice-Chancellor of the University has assured to find some funding for the University students to meet their travel expenses.

Meeting with Director, International Relations and Academic Admissions

Prof. Saju K. K. Will help frame and sign a MoU with the Indiana University and CUSAT.

Day 6: 09 December 2017

A workshop on Big Data processing tools was arranged. Prof. Mathew explained the important data processing and analytics tools. The lecture followed by hands-on training on Hadoop and Hive tools. The workshop benefited the students of the department.

Summary

The program was rewarding to the Department and the University. Faculty members, research scholars and the students have had an opportunity to directly interact with the scholar. The visit has helped the department to strengthen the research areas viz. Data Science and Internet of Things which are need of the hour.

This visit also helped the University to start a collaboration with Indiana University. Signing of a MoU will be considered in the immediate future. The University place on record the help rendered by the State Government, especially the Kerala State Higher Education Council.

Summary of the Talks by Prof. Mathew J Palakal

General Talk: Big Data and Data Science

Big Data and Data Science is an emerging theme in many fields where the abundance of data is there. These data in the digital form is created in every walks of life and the analytics of the data will bring out knowledge which can be directly fed to the applications to drive intelligent decision making. In the talk, the speaker elucidated the presence of big data and emergence of a new field Data Science which is the science of the data. He invited all the departments to tap the possibilities out there by creating interdisciplinary efforts to analyse the data and building new applications. A case study was discussed in pretty detail and all the attendees appreciated it.

Technical Talk 1: Internet of Things: An Application Perspective

The speaker brought out the importance of the tiny devices which are capable of sensing, computation and communication.

Technical Talk 2: Text Data Analytics

Technical Talk 3: Sentiment Analysis