

**Department of Computer Engineering**  
**Guest Lecture on Theory of Computer Science**

- 1. Date of the Seminar/Workshop:** 23<sup>rd</sup> August 2019
- 2. Title of the Seminar/Workshop:** Guest Lecture on Theory of Computer Science
- 3. Name of the Speaker:** Dr. Supratim Biswas (Professor, IIT Bombay)
- 4. Venue of the Seminar/Workshop:** Room No. 411
- 5. Time and Duration of the Seminar:** The seminar was conducted separately for each division and the timings are as follows:

**Time:** 10:15 – 12: 15 and 1:00 – 3:00

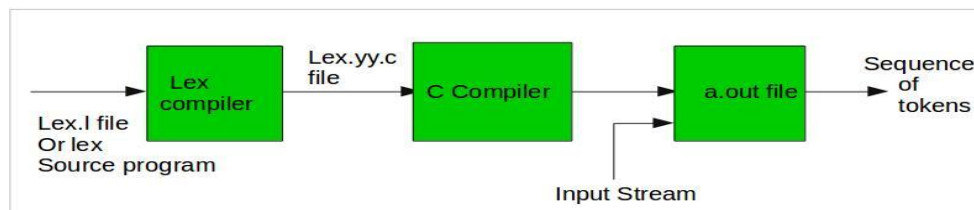
**Duration:** 2 hours each

- 6. Conducted For (Audience):** TE CMPN (A & B)
- 7. Objective of the Seminar/Workshop /Curriculum Gap identified/Other than that:** Practical Application of TCS and Why a computer engineering graduate should study TCS
- 8. Contents of the Seminar/Workshop**

- Flex and Lex Tool

**9. Description of the Entire Event**

The course was about Pattern Matching using a tool called Flex/Lex. The session started first with the basics of TCS- alphabet, pattern and Regular Expressions. He then gave an introduction about Flex/Lex tool which was the theme for the session. Flex/Lex is a tool to generate pattern recognizer given an input script(pattern, action). Action is a piece of C code which will be executed if the pattern is found. Flex/Lex generates a C code as the output. The generated file has the name 'lex.yy.c' On compiling the C code(lex.yy.c) we get our pattern recognizer. The input of the pattern recognizer is a string and output contains the detected pattern.



We then wrote the Regular Expression for the email ID and Date recognizer.

**- Technical Details:** Flex and Lex tools were explained on Linux machine.

The aim of the seminar was to have hands on practical approach on TCS, which was very taken in the seminar. Students enthusiastically attended the seminar and were happy with the content taken by Prof. Dr.S.Biswas

Ms. Ankita R Karia  
Teacher Incharge

Dr. Kavita Sonawane  
HOD, CMPN