

**K. J. Somaiya College of Engineering, Mumbai-77
(Autonomous College Affiliated to University of Mumbai)**

Annual Report

Somaiya Machine Learning Research Association (SMLRA) (2018-19)

K. J. Somaiya College of Engineering, Mumbai-77
(Autonomous College Affiliated to University of Mumbai)

Name of the organization/ chapter/ project: Somaiya Machine Learning Research Association (SMLRA)

List of Members/ Details of Committee: 2018-19

Sr. No.	Name of Faculty Advisor/ in-charge	Department/Role	Portfolio
1.	Dr. Shubha Pandit	Principal, KJSCE	Mentor cum Guide
2.	Swati Mali	Computer Engineering	Faculty Advisor

Sr. No.	Name of Student	Department and Year	Portfolio
1.	Sarfaraz Iraqui	LY Comps	Founder
2.	Satyajit Kamble	LY Comps	Founder
3.	Jasdeep Singh Grover	TY Comps	Founder

List of events conducted in 2018-19

Sr. No.	Date	Month	Year	Time	Venue	Event Description
1.	22	September	2018	11:00 AM-2:00 PM	B-112	Seminar on “AlexNet: Introduction to CNN”
2.	20	October	2018	10:30 AM-1:30 PM	B-112	Research paper demonstration on “3D Human Pose Estimation Using Videos”
3.	26	February	2019	2:30 PM-5:30 PM	B-113	Speaker session on “Introduction to Natural Language Processing (NLP)”
4.	7	April	2019	9:30 AM-2:30 PM	B-112	Implementation of Recurrent Neural Networks

Report on events/activities

Sr. No. of Event / Activity	Date	Year	Month	Time	Venue	Description of Activity
1.	22	2018	September	11:00 AM-2:00 PM	B-112	Seminar on “AlexNet: Introduction to CNN”

Details of participation in the event/activity

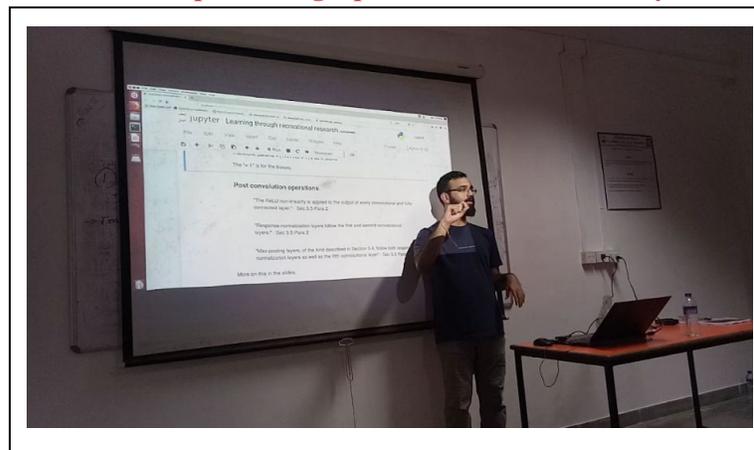
Year	COMP	ETRX	EXTC	IT	MECH	Total no of participants
All years						22

Report on event/ activity

Event: Speaker Session with practical demonstration

This speaker event marked the first session to be held by SMLRA. The speaker for this session was **Mr. Rohan Mahadev** from **AiToeLabs, Mumbai** with its headquarters in Seattle, USA. The difficulty level of this discussion was close to intermediate, where the moderator ran through the research paper along with its implementation, explained rudimentary concepts and helped developed foundation for the understanding of the AlexNet architecture and its application in Computer Vision. Detailed analysis of the AlexNet paper with implementation details was performed. The session was then opened for doubts. The main aim of this speaker session was to spike the participants' interests in the field of machine learning and deep learning and to improve the research culture at our institution.

Sample Photographs of the Event/Activity



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Sr. No. of Event / Activity	Date	Year	Month	Time	Venue	Description of Activity
2.	20	2018	October	10:30 AM-1:30 PM	B-112	Researcher session on “3D Human Pose Estimation Using Videos”

Details of participation in the event/activity

Year	COMP	ETRX	EXTC	IT	MECH	Total no of participants
All years						27

Report on event/ activity

Event: Research Paper Demonstration

The speaker for this session was **Mr. Rishabh Dabral, a Ph.D. scholar** from **IIT Bombay**, and he demonstrated his research paper. He presented a novel technique for 3D human pose estimation, which was selected for the **European Conference on Computer Vision (ECCV 2018)**. The discussion involved deep analysis of this research paper. Detailed analysis of various aspects pertaining to human pose estimation and new loss function formulation were analyzed. The hour-glass network and its applications were also understood. The session ended with a doubt clearing session. The main aim of this speaker session was to know about the research aspect in deep learning and the progress the field is making.

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Sr. No. of Event / Activity	Date	Year	Month	Time	Venue	Description of Activity
3.	26	2019	February	2:30 PM-5:30 PM	B-113	Speaker session on “Introduction to Natural Language Processing (NLP)”

Details of participation in the event/activity

Year	COMP	ETRX	EXTC	IT	MECH	Total no of participants
All years						152

Report on event/ activity

Event: Speaker Session

The speaker for this session was **Mr. Kevin Patel, a Ph.D. scholar** from **IIT Bombay**, working in **Center for Indian Language Technology (CFILT), IIT Bombay**, one of the finest research labs for NLP in India. Mr. Patel covered various details pertaining to natural language processing from sentiment analysis to text summarisation and chatbots. Topics like geographic profiling, SkipGram model, greedy unsupervised pre-training, and model explainability were also covered. The session ended with a doubt clearing session. The main aim of this speaker session was to give the students and faculties an idea of what Natural Language Processing is and what are the advancements in NLP research.

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Sr. No. of Event / Activity	Date	Year	Month	Time	Venue	Description of Activity
4.	7	2019	April	9:30 AM-2:30 PM	B-112	Implementation of Recurrent Neural Networks

Details of participation in the event/activity

Year	COMP	ETRX	EXTC	IT	MECH	Total no of participants
All years						34

Report on event/ activity

Event: Speaker Session with practical demonstration

The speaker for this session was **Mr. Kevin Patel, a Ph.D. scholar** from **IIT Bombay**, working in **Center for Indian Language Technology (CFILT), IIT Bombay**, one of the finest research labs for NLP in India. Mr. Patel discussed about **PyTorch**, a deep learning framework by Facebook and why it is so research-friendly. The concept of Recurrent Neural Networks (RNNs) was explained in detail with practical demonstration. The audience was made to think and analyze various situation-based questions posed by Mr. Kevin. The session ended with a doubt clearing session. The main aim of this speaker session was to give students and faculties interested in NLP a head start and learn new concepts from a researcher's perspective.