

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

ANNUAL REPORT

**Computer Society of India-
KJSCE Students' Chapter**

2018-2019

Name of the organization/ chapter/ project: CSI - KJSCE

Annual Report (2018-2019)

Computer Society of India, KJSCE Students' Chapter

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

List of Members/ Details of Committee: 2018 - 2019

| Sr. No. | Name of the Faculty advisor/ in-charge | Department | Portfolio |
|----------------|---------------------------------------------------|-------------------|---------------------------|
| 1. | Dr. Manish Potey | COMPS | Student Branch Counsellor |
| 2. | Prof. Shweta Dhawan Chachra | COMPS | Faculty Advisor |
| 3. | Prof. Suchitra Patil | IT | Faculty Advisor |

| Sr. No. | Name of Student | Current Year of Study and Department | Portfolio |
|----------------|------------------------|-------------------------------------------------|-------------------------|
| 1. | Hitansh Shah | TY IT | General Secretary |
| 2. | Bhavini Mamtora | TY COMPS | Jt. General Secretary |
| 3. | Aliasgar Haji | TY IT | Secretary |
| 4. | Shreya Varma | TY COMPS | Financial Secretary |
| 5. | Darshan Chheda | SY COMPS | Jt. Financial Secretary |
| 6. | Shamilee Peruvaludhi | TY COMPS | Coordinator |
| 7. | Hitanshu Shah | TY IT | Technical Head |
| 8. | Kunj Haria | TY COMPS | Jt. Technical Head |
| 9. | Tanish Sehgal | TY COMPS | Jt. Technical Head |
| 10. | Aditya Panchal | SY IT | Technical Team |
| 11. | Nikhil Bhardwaj | SY COMPS | Technical Team |
| 12. | Zenil Haria | SY COMPS | Technical Team |
| 13. | Ruchi Bhatia | TY COMPS | Public Relation Officer |
| 14. | Ankita Patil | SY IT | Public Relation Team |
| 15. | Priyanka Kale | SY COMPS | Public Relation Team |
| 16. | Shivali Joshi | SY IT | Public Relation Team |
| 17. | Jash Gopani | TY IT | Creative Head |
| 18. | Nikita Sangal | SY IT | Creative Team |
| 19. | Varada Harikumar | SY EXTC | Creative Team |
| 20. | Kaustubh Damania | SY COMPS | Event Team |
| 21. | Preeti Podar | SY EXTC | Event Team |
| 22. | Smit Vora | SY COMPS | Event Team |
| 23. | Talha Chafekar | FY COMPS | FE Representative |
| 24. | Aafiya Hussain | FY COMPS | FE Representative |
| 25. | Saurav Joshi | FY COMPS | FE Representative |
| 26. | Parth Shah | FY COMPS | FE Representative |
| 27. | Kevin Shah | FY COMPS | FE Representative |
| 28. | Jainam Shah | FY COMPS | FE Representative |

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| | | | |
|-----|-------------|----------|-------------------|
| 29. | Ayush Khade | FY COMPS | FE Representative |
| 30. | Aman Desai | FY COMPS | FE Representative |
| 31. | Virag Jain | FY IT | FE Representative |
| 32. | Yashvi Vora | FY IT | FE Representative |

Photo of members/committee – 2018-2019



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Details of events/activities held during academic year 2018-2019

| Sr. No. of Event / Activity | Day/ Date | Year | Month | Time | Venue | Description of Activity |
|------------------------------------|---------------------------------------|-------------|--------------|---------------------------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------|
| 1. | 31 st | 2018 | July | 12:30 P.M. to 1:15 P.M. | Seminar Hall B507 | Handover Ceremony |
| 2. | 13 th | 2018 | August | 5:15 P.M. to 7:30 P.M. | Seminar Hall B113 | Seminar - Tech Routes |
| 3. | 20 th | 2018 | August | 5:15 P.M. to 7:30 P.M. | B309, B314 | Workshop on Introduction to Python for Machine Learning |
| 4. | 21 st | 2018 | August | 5:15 P.M. to 7:30 P.M. | B309, B314 | Workshop on Advanced Machine Learning |
| 5. | 10 th | 2018 | September | 5:15 P.M. to 7:30 P.M. | Seminar Hall B507 | Seminar on Machine Learning |
| 6. | 11 th | 2018 | September | 5:15 P.M. to 7:30 P.M. | B building 2 nd and 3 rd floor labs | Workshop on Machine Learning |
| 7. | 28 th | 2018 | September | 5:15 P.M. to 7:30 P.M. | B309, B310, B313 and B314 | Workshop on Cryptography |
| 8. | 6 th | 2017 | October | 9:00 A.M. to 7:30 P.M. | B213, B214, B215, B216, B217 and Drawing Room ('A' Building) | Abhyantriki events |
| 9. | 2 nd | 2018 | November | 5:15 P.M. to 7:30 P.M. | B309, B314 | Workshop on Game Development Using Python |
| 10. | 2 nd and 3 rd | 2019 | February | 10:00 A.M. on 2 nd February to 5:00 P.M. on 3 rd February | Seminar Halls B113, B507 and B517 | HackIt (TechNext 2019) |
| 11. | 18 th | 2019 | March | 5:45 P.M. to 7:30 P.M. | B309 and B313 | Workshop on Web Development using Flask |
| 12. | 5 th and 6 th | 2019 | April | 10:00 P.M. on 5 th April to 10:00 P.M. on 6 th April | - | CodeWars 3.0 |
| | 13 th and 14 th | | | 10:00 P.M. on 13 th April to 10:00 P.M. on 14 th April | | |

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| Sr. No. of Event / Activity | Day/ Date | Year | Month | Time | Venue | Description of Activity |
|------------------------------------|------------------|-------------|--------------|-------------------------|-------------------|--------------------------------|
| 1. | 31 st | 2018 | July | 12:30 P.M. to 1:15 P.M. | Seminar Hall B507 | Handover Ceremony |

Report of event/ activity

Event: Handover Ceremony

Host: Jt. General Secretary Bhavini Mamtora

Description:

- The ceremony began with a warm introductory note by the host, Jt. Gen. Secretary Bhavini Mamtora, followed by the Somaiya prayer, sung by the council members- Shamilee Peruvaludhi, Shivali Joshi, Priyanka Kale and Preeti Poddar.
- This was followed by a speech and a short presentation by the former Gen. Secretary Meet Paradia, emphasizing on the success that the previous council achieved through its various events and accomplishments.
- Next, the former council members were felicitated by the esteemed faculty members with certificates and LOAs.
- The former Gen. Secretary Meet Paradia officially handed over the Gen. Secretary position to the current Gen. Secretary Hitansh Shah.
- Also, the handovers of the other positions- the Technical Head, the Secretary and the Financial Secretary- were done from the previous council members to the current council members.
- Next, the current Gen. Secretary Hitansh Shah introduced the new council members through a speech and a short presentation, highlighting the goals and objectives of the new council with an overview of the various upcoming events of the council. He also thanked all the previous council members for their immense hard work and dedication in bringing about a great year and how the current council would work towards achieving the same this year.
- The ceremony ended with a vote of thanks by the host and photographs were taken by the new and the old council members with the Student Branch Counsellor and the other esteemed faculty members.

Sample Photographs of the Event/Activity

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| Sr. No. of Event / Activity | Day/ Date | Year | Month | Time | Venue | Description of Activity |
|------------------------------------|------------------|-------------|--------------|------------------------|-------------------|--------------------------------|
| 2. | 13 th | 2018 | August | 5:15 P.M. to 7:30 P.M. | Seminar Hall B113 | Seminar - Tech Routes |

Report of event/ activity

Event: Seminar - Tech Routes

Details of participation in the event/ activity

| No. of students | COMP | ETRX | EXTC | IT | MECH | Total no of participants |
|-----------------|------|------|------|----|------|--------------------------|
| FY | | | | | | 166 |
| SY | | | | | | |
| TY | | | | | | |
| LY | | | | | | |

Host: PRO Ruchi Bhatia

Speakers:

Technical Head Hitanshu Shah, General Secretary Hitansh Shah and Financial Secretary Shreya Varma

Guest Speakers: Previous CSI council members- Ex-Technical Head Sarfaraz Iraque and Ex-PRO Aromal Nair

Description:

- The seminar commenced with the presentation of a short video, which was followed by an introductory note by the host, PRO Ruchi Bhatia. She gave the attendees a gist of what to expect from the seminar and the various topics that the speakers would be covering throughout.
- Before moving on to the main presentation, the guest speakers, Sarfaraz Iraque and Aromal Nair, were invited to speak about their own experiences as engineering students. They enlightened the audience with their inspiring personal stories of how they spent their three years in engineering and how they coped up with peer pressure and academics to ultimately achieve success.
- The main presentation began with the three speakers- Technical Head Hitanshu Shah, General Secretary Hitansh Shah and Financial Secretary Shreya Varma, each speaking on three different fields of engineering: Machine Learning/ Artificial Intelligence, Software Development and Web Development respectively. The following were the points covered by them with respect to each topic:
 - What is the field about? What all does it consist of?
 - What are the job profiles and the corresponding salaries associated with the field?
 - How to go about learning the field i.e., what and when to learn in order to master that field?
- The speakers also talked about the below mentioned points to a certain detail:

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- Ways to build up an online resume
 - Certifications and competitions
 - Entrance exams like GRE and GATE
 - Internships and Placements
- As the presentation ended, the audience had various queries related to the content of the seminar and the speakers made sure to clarify all their doubts. Lastly, the Financial Secretary Shreya Varma made a quick announcement regarding how to go about registering for a CSI membership through the college website.
- This marked the end of the seminar. The host, PRO Ruchi Bhatia thanked the attendees for their huge response and hoped to see them in the upcoming seminars and workshops.

Sample Photographs of the Event/Activity



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| Sr. No. of Event / Activity | Day/ Date | Year | Month | Time | Venue | Description of Activity |
|------------------------------------|------------------|-------------|--------------|------------------------|--------------|---------------------------------------------------------|
| 3. | 20 th | 2018 | August | 5:15 P.M. to 7:30 P.M. | B309, B314 | Workshop on Introduction to Python for Machine Learning |

Details of participation in the event/ activity

| No. of students | COMP | ETRX | EXTC | IT | MECH | Total no of participants |
|------------------------|-------------|-------------|-------------|-----------|-------------|---------------------------------|
| FY | | | | | | 25 |
| SY | | | | | | |
| TY | | | | | | |
| LY | | | | | | |

Report of event/ activity

Event: Workshop on Introduction to Python for Machine Learning

Speakers:

| Lab No. | Speakers |
|----------------|---------------------------------------------------------------|
| B309 | PRO Ruchi Bhatia and Kaustubh Damania (Event Team) |
| B314 | Tech Head Hitanshu Shah and Jt. Gen Secretary Bhavini Mamtora |

Description:

- This workshop was conducted for SEs and TEs, aiming at introducing students to the conceptual basics of Python required for Machine Learning and the various libraries like NumPy, Pandas and Matplotlib which are used in Data Analysis.
- Jupyter Notebook was used to share the content of the workshop with the students.
- The speakers covered the following topics:
 - Lists in Python and the various operations that can be performed on them- appending of elements at the end, slicing of data stored in the lists, iterating through the lists, etc.
 - Strings in Python.
 - Dictionaries in Python which are used to hold data together as items with their values and the corresponding keys.
 - The NumPy library and creation of arrays using NumPy.
 - Various operations performed on NumPy arrays (both single- and multi-dimensional) and

the significance of using NumPy arrays over ordinary lists.

- Splicing of data in NumPy arrays.
 - The Pandas library and creation of series using Pandas and performing of various operations on them.
 - The Data Frame data structure in Pandas and implementation of operations on them.
 - Introduction to Matplotlib and creation of various charts like line graphs, scatter plots, bar charts, etc. using the same.
 - Using the FIFA data set to implement different graphs for different scenarios.
- At the end, the students submitted feedback about the workshop. From the feedback received, majority of the students found the workshop to be very useful. The content of the workshop was especially appreciated.

Sample Photographs of the Event/Activity

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| Sr. No. of Event / Activity | Day/ Date | Year | Month | Time | Venue | Description of Activity |
|------------------------------------|------------------|-------------|--------------|------------------------|--------------|---------------------------------------|
| 4. | 21 st | 2018 | August | 5:15 P.M. to 7:30 P.M. | B309, B314 | Workshop on Advanced Machine Learning |

Report of event/ activity

Event: Workshop on Advanced Machine Learning

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Details of participation in the event/ activity

| No. of students | COMP | ETRX | EXTC | IT | MECH | Total no of participants |
|-----------------|------|------|------|----|------|--------------------------|
| FY | | | | | | 23 |
| SY | | | | | | |
| TY | | | | | | |
| LY | | | | | | |

Speakers:

| Lab No. | Speakers |
|---------|--------------------------------------------------------------|
| B309 | Gen. Secretary Hitansh Shah and Jt. Tech. Head Tanish Sehgal |
| B314 | Tech. Head Hitanshu Shah and Secretary Aliasgar Haji |

Description:

- This workshop was conducted for SEs and TEs and was in continuation to the ‘Introduction to Python for Machine Learning’ workshop which was conducted on Monday, 20th August 2018.
- While the previous workshop aimed at introducing the students to the basics of Python and libraries like NumPy and Pandas, this workshop was aimed at putting those concepts to practice with Advanced Machine Learning.
- The following was covered by the speakers in the workshop:
 - A brief introduction to Machine Learning, its types and the basic procedure to follow when solving an ML problem.
 - The concept of regression (covered in great detail with the help of a sample problem):
 - a. Splicing the data of the given data set, visualizing the data set by plotting it, further separation of the data set into the training data and the test data.
 - b. Fitting the required model from Scikit with the training data.
 - c. The concepts of polynomial features, underfitting and overfitting of data and the learning curve.
 - d. The concept of regularization.
 - Furthermore, students were given another data set (the FIFA data set) and asked to implement the above concepts of linear regression on them.

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| Sr. No. of Event / Activity | Day/ Date | Year | Month | Time | Venue | Description of Activity |
|------------------------------------|------------------|-------------|--------------|------------------------|-------------------|--------------------------------|
| 5. | 10 th | 2018 | September | 5:15 P.M. to 7:30 P.M. | Seminar Hall B507 | Seminar on Machine Learning |

Details of participation in the event/ activity

| No. of students | COMP | ETRX | EXTC | IT | MECH | Total no of participants |
|------------------------|-------------|-------------|-------------|-----------|-------------|---------------------------------|
| FY | | | | | | 140 |
| SY | | | | | | |
| TY | | | | | | |
| LY | | | | | | |

Report of event/ activity

Event: Seminar on Machine Learning

Speakers:

Gen. Secretary Hitansh Shah, Tech. Head Hitanshu Shah and Jt. Tech. Head Tanish Sehgal

Description:

- This seminar was conducted only for the FEs so as to introduce them to notion of Machine Learning and its implementation in the field of Artificial Intelligence.
- It began with the speakers giving a brief introduction about Artificial Intelligence. Several real-life examples showcasing the implementation of AI were given: AlphaGo, IBM Watson and OpenAI to name a few.
- This was followed by introduction to the concept of Machine Learning. The speakers covered the following topics under Machine Learning:
 - A brief introduction to Machine Learning.
 - The three ML models viz. Supervised Learning, Unsupervised Learning and Reinforcement Learning.
 - Under Supervised Learning, the concept of Classification using the K-Nearest Neighbours approach. Also, the concept of Regression was explained.
 - Neural Networks: A basic idea about what are neural networks and several simpler

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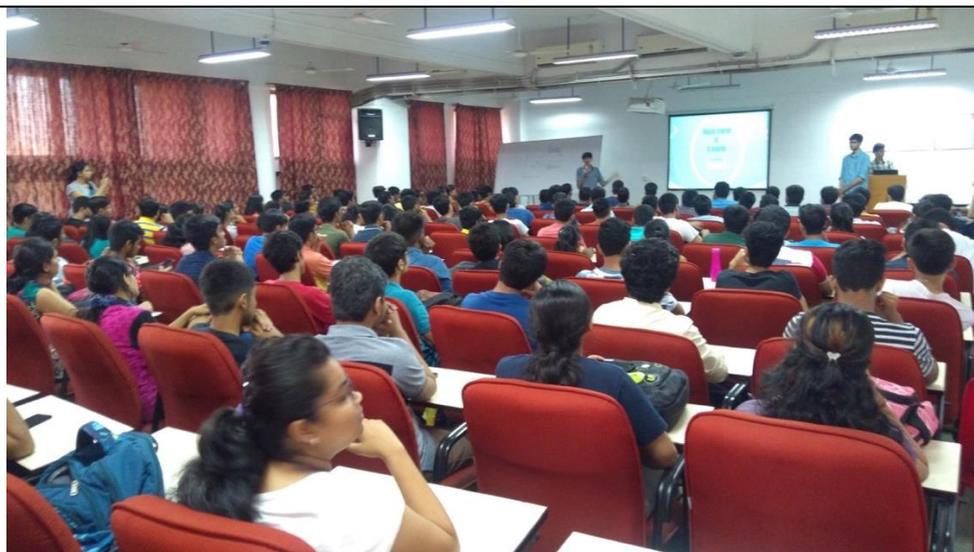
examples were used to explain the concept. Also, an application of Neural Networks, Giorgi Cam was explained and demonstrated as well.

- The basic idea of unsupervised learning and real-life examples that implement it.
 - Reinforcement learning and Recommender systems: The concept and again, examples to help explain the concept better.
- Lastly, a comparison of the three ML models was made and this concluded the seminar. The attendees also asked their doubts regarding the content of the seminar and the speakers made sure to clarify them.
- The attendees were asked to give their feedback about the seminar. As per the responses collected from them, it was observed that, while a majority of them found the seminar to be useful and interesting, some of the attendees suggested that we use more practical examples while explaining the concepts

Sample Photographs of the Event/Activity



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| Sr. No. of Event / Activity | Day/ Date | Year | Month | Time | Venue | Description of Activity |
|------------------------------------|------------------|-------------|--------------|------------------------|-----------------------------------------------------------|--------------------------------|
| 6. | 11 th | 2018 | September | 5:15 P.M. to 7:30 P.M. | B building 2 nd and 3 rd floor labs | Workshop on Machine Learning |

Details of participation in the event/ activity

| No. of students | COMP | ETRX | EXTC | IT | MECH | Total no of participants |
|-----------------|------|------|------|----|------|--------------------------|
| FY | | | | | | 115 |
| SY | | | | | | |
| TY | | | | | | |
| LY | | | | | | |

Report of event/ activity

Event: Workshop on Machine Learning

Speakers:

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| Lab No. | Speakers |
|---------|-------------------------------------------------------------------|
| B309 | PRO Ruchi Bhatia and Aditya Panchal (Technical Team) |
| B314 | Tech. Head Hitanshu Shah and Coordinator Shamilee Peruvaludhi |
| B315 | Jt. Tech. Head Tanish Sehgal and Preeti Podar (Event Team) |
| B316 | Jt. Tech. Head Kunj Haria and Varada Harikumar (Creative Team) |
| B215 | Secretary Aliasgar Haji and Nikhil Bhardwaj (Technical Team) |
| B217 | Financial Secretary Shreya Varma and Zenil Haria (Technical Team) |

Description:

- This workshop was conducted only for FEs and was a follow-up to the seminar conducted on 'Machine Learning' on Monday, the 10th of September 2018. This workshop served as a practical approach for the students to implement the various ML models that they learnt about in the seminar.
- The speakers covered the following topics (About 2-3 real-life problems were taken up by the speakers, also the theory behind the model being used for that particular problem was explained in great detail as well):
 - A brief recap of the concept of Machine Learning and its three basic models- Supervised Learning, Unsupervised Learning and Reinforcement Learning.
 - Under Supervised Learning, the concept of Classification and using the K-Nearest Neighbors approach to solve a real-life example of creating an AI to distinguish apples and oranges.
 - The concept of Regression which is also under supervised learning and using the Linear Regression approach to solve another real-life example of calculating the number of calories burnt by a person based on the speed, distance and number of steps taken by them.
 - The approach used to solve any ML problem- importing of the dataset, splicing of the dataset into features and labels, plotting graphs for the same, splitting of the dataset into training and test sets, selecting of an appropriate model and allowing it to learn using the training set and finally letting the model predict the results for the test set.
 - Apart from the above, the concept behind the algorithms being used to solve the problems were also explained.

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- At the end, the students submitted feedback about the workshop. From the feedback received, majority of the students found the workshop to be useful. The content and the speakers were equally appreciated.

Sample Photographs of the Event/Activity



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| Sr. No. of Event / Activity | Day/ Date | Year | Month | Time | Venue | Description of Activity |
|------------------------------------|------------------|-------------|--------------|------------------------|---------------------------|--------------------------------|
| 7. | 28 th | 2018 | September | 5:15 P.M. to 7:30 P.M. | B309, B310, B313 and B314 | Workshop on Cryptography |

Details of participation in the event/ activity

| No. of students | COMP | ETRX | EXTC | IT | MECH | Total no of participants |
|------------------------|-------------|-------------|-------------|-----------|-------------|---------------------------------|
| FY | | | | | | 81 |
| SY | | | | | | |
| TY | | | | | | |
| LY | | | | | | |

Report of event/ activity

Event: Workshop on Cryptography

Speakers:

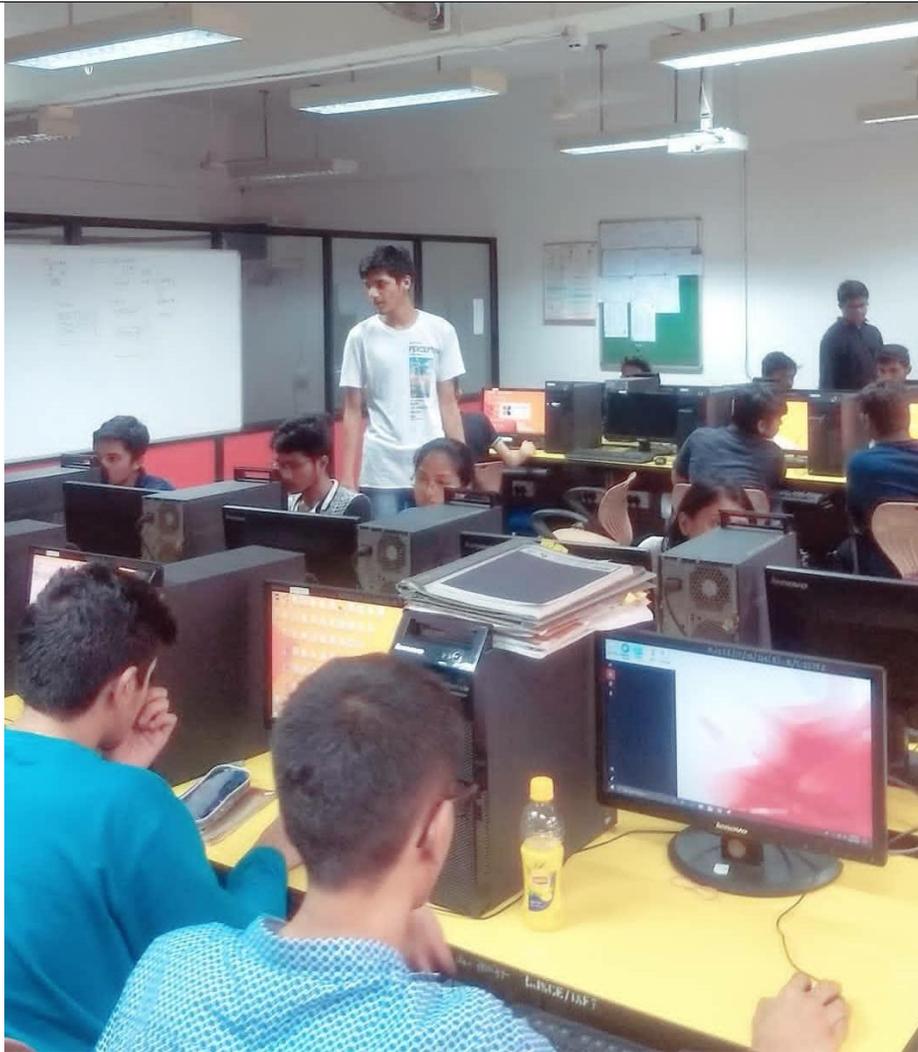
| Lab No. | Speakers |
|---------|----------------------------------------------------------------------|
| B309 | Jt. Tech. Head Kunj Haria and Jt. Financial Secretary Darshan Chheda |
| B310 | Jt. Tech. Head Tanish Sehgal and Preeti Podar (Event Team) |
| B313 | Tech. Head Hitanshu Shah and Shivali Joshi (PR Team) |
| B215 | Creative Head Jash Gopani and Aditya Panchal (Technical Team) |

Description:

- This workshop was conducted for both FEs and SEs. The main aim of the workshop was to provide the attendees with an overview of the concept of cybersecurity and how cryptography proves to be a useful technique in reinforcing security during information transfer.
- The speakers covered the following topics:
 - The idea of cybersecurity and why it has become an important matter of study in the present world.
 - The different types of cybersecurity threats such as malware (viruses, computer worms, ransomware), social engineering (phishing), etc.
 - The concept of a computer virus and a couple of practical implementations of the same were also conducted wherein the students created different kinds of viruses themselves.
 - Introduction to cryptography, the concepts of encryption and decryption and the different types of encryption-decryption techniques. Also, the concept of keys- public key and private key.
 - The idea of a cipher and its different kinds- Caesar cipher and Rail fence cipher and the entire technique of encrypting and decrypting data using these ciphers.
 - Introduction to the OpenSSL library, the concept of a Certification Authority (CA) and how it issues authentication certificates. Moreover, the students were taught to create their

own keys and certificates using OpenSSL.

Sample Photographs of the Event/Activity



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| Sr. No. of Event / Activity | Day/ Date | Year | Month | Time | Venue | Description of Activity |
|------------------------------------|------------------|-------------|--------------|------------------------|--------------------------------------------------------------|--------------------------------|
| 8. | 6 th | 2017 | October | 9:00 A.M. to 7:30 P.M. | B213, B214, B215, B216, B217 and Drawing Room ('A' Building) | Abhiyantriki events |

Report of event/ activity

Event: Abhiyantriki events

EVENT 1: CODE IN X

Details of participation in the event/ activity

| No. of students | COMP | ETRX | EXTC | IT | MECH | Total no of participants |
|------------------------|-------------|-------------|-------------|-----------|-------------|---------------------------------|
| FY | | | | | | 71 teams |
| SY | | | | | | |
| TY | | | | | | |
| LY | | | | | | |

Description:

➤ This event comprised of the following three rounds:

- Round 1:

The participants were provided with the syntax sheets for the unknown language 'X' to allow them to understand how to write basic programs using that language. Also, a couple of sample problem statements were given to them to solve using the language 'X' for better understanding of the language. Later, the actual problem statements of the competition were provided to them, one of which had to be solved in Round 3.

- Round 2:

This was the auction round wherein participants had to bid for various 'Code Packs' which consisted of if-else statements, for/while loops and functions, each pack priced at a certain base value. Participants were given a total amount of 20000 coinbits per team and asked to bid for their desired code packs and the highest bid was given an instance of the same. Further, participants willing to pay more than the highest bid were also given the instances of the same pack. Three sub-rounds were conducted during this round.

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- Round 3:

This was the third and final round wherein participants had to actually implement the previously given problem statements using their purchased code packs. Also, additional individual components like an extra if-else statement or a for loop were also provided to teams specific to their requirements but at a particular price.

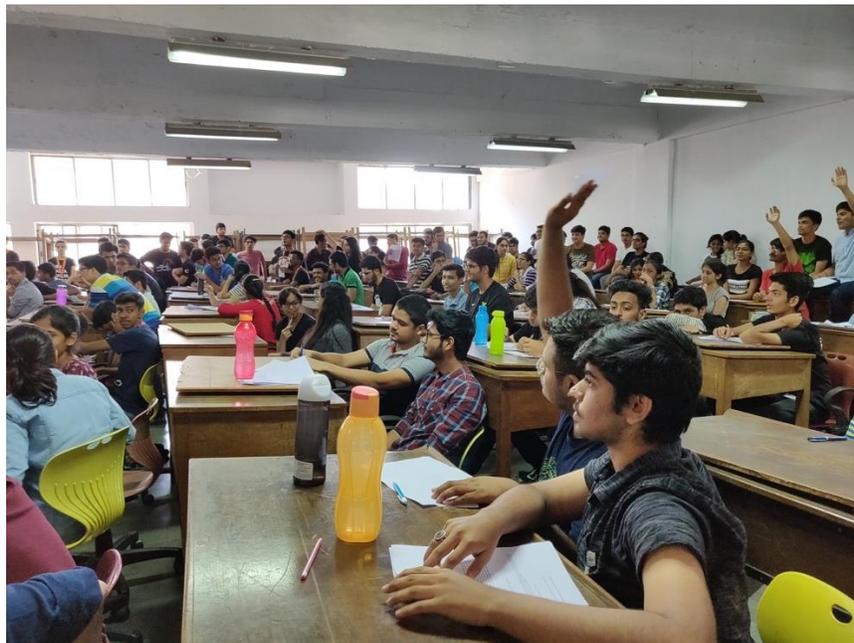
- After the conclusion of Round 3, after all the teams had submitted their solutions, the council members evaluated the submissions taking into consideration the code packs used, additional components used, accuracy and the level of optimization of the solutions and points were awarded correspondingly. Later, the winners of the competition were declared and felicitated.

Details of winners and their respective prizes

| Sr. No. | Name of the student | Department | Details of prize won | Remarks |
|---------|---------------------------------|------------|----------------------|---------------------------|
| 1. | Prajwal Kotian and Raj Shah | IT | - | Winner |
| 2. | Divya Khetan and Prafful Javare | COMPS | - | 1 st Runner-Up |
| 3. | Mayank Kakad and Aakash Chavan | COMPS | - | 2 nd Runner-Up |

Sample Photographs of the Event/Activity

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EVENT 2: CODE CRUX

Details of participation in the event/ activity

| No. of students | COMP | ETRX | EXTC | IT | MECH | Total no of participants |
|-----------------|------|------|------|----|------|--------------------------|
| FY | | | | | | 20 teams |
| SY | | | | | | |
| TY | | | | | | |
| LY | | | | | | |

Description:

➤ This event comprised of the following three rounds:

- Round 1: Blank Screen Coding:

Each team was randomly allotted two problem statements, each to be solved in two different languages. While one of the team members solved one of the problems in one language, the other had to solve the other problem in a different language.

Each participant was given 15 minutes to solve their respective problems with the monitors of the PCs turned off. At the end of 15 minutes, team members had to swap their places and solve each other's problems in the next 15 minutes. However, immediately after swapping, participants were given some time to see and correct their partner's solution after which the monitors were again turned off for the next slot of 15 minutes.

At the end of 30 minutes each participant submitted their respective solutions. The council members evaluated all the submissions of the teams, taking into consideration the accuracy and level of optimization of each solution and accordingly points were awarded for the same.

- Round 2: Technical Treasure Hunt:

Each team were given five programs one after the other. Each program consisted of a list of clues that again, had to be solved one after the other. The clues on being cracked resulted in a solution that the teams had to guess. Only on cracking of all the clues of the first program was the team allowed to proceed with the next program. Whoever finished up all the five programs the fastest was to be declared the winner of this round.

- Round 3: Surprise Round:

The details of the event were declared on the spot to all the teams. In this round, each team member had to choose a problem statement that had to be solved by their partner as well as

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another participant belonging to a different team altogether. Problems had to be chosen such that they could be solved easily by the respective partner of the participant but not by the member of the other team.

At the end, each participant submitted their respective solutions. The council members evaluated all the submissions of the teams, taking into consideration the accuracy and level of optimization of each solution and accordingly points were awarded for the same.

- By taking into consideration the points scored by each team in each of the three rounds of the competition, the cumulative score of each team was calculated and the highest scorers were declared the winners and felicitated.

Details of winners and their respective prizes

| Sr. No. | Name of the student | Department | Details of prize won | Remarks |
|----------------|-----------------------------|-------------------|-----------------------------|---------------------------|
| 1. | Prajwal Kotian and Raj Shah | IT | - | Winner |
| 2. | Gaurav B. and Gaurang A. | COMPS | - | 1 st Runner-Up |
| 3. | Karan Shah and Chirag Jain | - | - | 2 nd Runner-Up |

Sample Photographs of the Event/Activity

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EVENT 3: KEYWORD RUSH

Details of participation in the event/ activity

| No. of students | COMP | ETRX | EXTC | IT | MECH | Total no of participants |
|-----------------|------|------|------|----|------|--------------------------|
| FY | | | | | | 30 |
| SY | | | | | | |
| TY | | | | | | |
| LY | | | | | | |

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Description:

- This was a fun informal event wherein participants had to compete against each other to make the maximum number of keywords possible on the Connect-4 game board using the letters available to them. The participant with the maximum number of keywords made using the least number of letters was declared the winner of the event. The keywords had to be from popular programming languages like C, C++, Java, etc.
- Gaurang, one of the participants, was declared the winner of the event with 8 keywords made with just 22 letters.

Details of winners and their respective prizes

| Sr. No. | Name of the student | Department | Details of prize won | Remarks |
|---------|---------------------|------------|----------------------|---------|
| 1. | Gaurang A. | COMPS | - | Winner |

| Sr. No. of Event / Activity | Day/ Date | Year | Month | Time | Venue | Description of Activity |
|-----------------------------|-----------------|------|----------|------------------------|------------|-------------------------------------------|
| 9. | 2 nd | 2018 | November | 5:15 P.M. to 7:30 P.M. | B309, B314 | Workshop on Game Development Using Python |

Details of participation in the event/ activity

| No. of students | COMP | ETRX | EXTC | IT | MECH | Total no of participants |
|-----------------|------|------|------|----|------|--------------------------|
| FY | | | | | | 35 |
| SY | | | | | | |
| TY | | | | | | |
| LY | | | | | | |

Report of event/ activity

Event: Workshop on Game Development Using Python

Speakers:

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| Lab No. | Speakers |
|---------|-----------------------------------------------------------------------|
| B309 | Nikhil Bhardwaj (Technical Team) and Varada Harikumar (Creative Team) |
| B310 | Zenil Haria (Technical Team) and Preeti Podar (Event Tea |

Description:

- This workshop was conducted for FEs and was aimed at introducing the concepts of basic game development using Python and more specifically using PyGame which is a set of Python modules designed for writing video games; it includes computer graphics and sound libraries designed to be used with the Python programming language.
- The speakers implemented ‘Snake’, a basic game using PyGame and throughout the implementation, they covered the following topics:
 - Initializing the game window, setting up its dimensions using predefined methods of the PyGame module.
 - Creating the structure of the ‘snake’ and the method to store the positions of all its consecutive blocks that will be added one by one as it consumes the ‘food’.
 - Movement of the snake with respect to each of its blocks, most importantly, the head block.
 - Event handling of the entire game wherein it is decided what happens when a certain ‘event’ such as pressing of a key from the keyboard takes place. In this case, the movement of the snake is to be controlled via the keyboard.
 - Defining the scenario when the snake consumes the food.
 - Finally, taking care of the fact that on collision of the snake on the edges of the window, the game should end or in other words, taking care of all the edge cases. Also, the codes were executed and the students could then practically see and understand how the game actually works.
- At the end of the session, the students submitted feedback about the workshop. From the feedback received, majority of the students found the workshop to be useful. The content and the speakers were equally appreciated.

Sample Photographs of the Event/Activity

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| Sr. No. of Event / Activity | Day/ Date | Year | Month | Time | Venue | Description of Activity |
|------------------------------------|-------------------------------------|-------------|--------------|---------------------------------------------------------------------------------|-----------------------------------|--------------------------------|
| 10. | 2 nd and 3 rd | 2019 | February | 10:00 A.M. on 2 nd February to 5:00 P.M. on 3 rd February | Seminar Halls B113, B507 and B517 | HackIt (TechNext 2019) |

Details of participation in the event/ activity

| No. of students | COMP | ETRX | EXTC | IT | MECH | Total no of participants |
|------------------------|-------------|-------------|-------------|-----------|-------------|---------------------------------|
| FY | | | | | | 38 teams |
| SY | | | | | | |
| TY | | | | | | |
| LY | | | | | | |

Report of event/ activity

Event: HackIt (TechNext 2019)

Description:

- HackIt (TechNext 2019) was a full-fledged 24-hour overnight hackathon with the participants working in four primary domains- Machine Learning/ Artificial Intelligence, Augmented/Virtual Reality (AR/VR), Blockchain Technology and Web/Application development.
- The purpose of the hackathon was to encourage budding coders and innovators to explore newer and fascinating domains like AI and Blockchain and come up with ideas and products that could solve modern-world problems in ways more efficient and innovative than the ones existing. Keeping that in mind, a set of problem statements in each of these domains were curated by the title sponsor, Capgemini and the other respective sponsors.
- The main event began on 2nd February at 10am with a brief seminar by Dr. Prasad Ramanathan, Sr. Director at Capgemini Technology Services India Ltd. He spoke about the company, its values and beliefs, the current working scenarios, products and services that they were working on presently and the various employment opportunities available at Capgemini for aspiring graduates.
- After the seminar, the teams were led to the seminar halls (B507 and B517) for the hackathon. They were provided with their respective net IDs for internet connection and charging ports. The hackathon then commenced at 11:30am. Faculty-in-charge of the council, Mrs. Suchitra Patil visited the venue to get updates about the event.

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- Teams continued with their work throughout the day and were given breaks for lunch, tea and snacks and dinner. The CSI council members were present at the venue throughout the event to assist the teams with anything required and to ensure that the hackathon proceeded smoothly. At 3am in the morning, Mr. Harsh Vitra from riidl visited the venue and interacted with all the teams to check up on their respective projects and the progress they had made.
- Teams kept working on their projects till 9 in the morning (on 3rd February) when they were called in for breakfast. Also, the Student Branch Counsellor (SBC), Dr. Manish Potey and faculty-in-charge, Mrs. Shweta Dhawan Chachra visited the venue to check up on the updates of the hackathon. Dr. Ramanathan from Capgemini also visited the venue and interacted with the teams regarding their work.
- At exactly 12pm, all the teams submitted their respective solutions on HackerEarth. This was followed by the first round of elimination wherein all the teams were asked to present their work in front of the panel of judges consisting of Dr. Ramanathan from Capgemini, Mr. Gaurang Shetty and Mr. Harsh Vitra from riidl, Dr. Irfan Siddavatam, Associate Professor, Department of Information Technology, KJSCE and Ms. Devika Shanbhag, an alumnus of KJSCE and the ex-Technical Head of CSI-KJSCE. In this round, the teams were judged based on the following criteria: addressing the problem statement (45%), functionality of the implementation (25%), USPs of the idea (20%) and UI/UX of the application (10%).
- After the first round, a total of 6 teams were shortlisted for the next and final round. In this round, the shortlisted teams had to give a final detailed presentation of their project to the panel of judges while also being cross-questioned by them. After this round ended, the judges deliberated over the work of all the shortlisted teams and came up with the list of winners. A quick vote of thanks was extended to all the panelists and they were felicitated with mugs by the faculties-in-charge. Lastly, the list of winners was announced.
- All the teams were felicitated with bouquets and T-shirts by the panel of judges. A couple of teams were also offered internship opportunities at riidl by Mr. Gaurang Shetty and Mr. Harsh Vitra. The event ended with a final vote of thanks by the council to each and every team and the panelists for their involvement and participation.

Details of winners and their respective prizes

| Position | Name of the student | Department | Project Name | Remarks |
|----------|---------------------------------------------------|------------|-----------------------|-----------------------------------------|
| 1. | Atharva Kamat, Aamir Darukhanawalla, Kushal Doshi | COMPS | Monopoly | - |
| 2. | Ketki Davda, Pranavi Choudhary, Darshee Machhar | COMPS | AR Indoor Navigation | 2 nd Position Jointly Shared |
| | Roshan James, | IT | Blockchain Bit-by-bit | |

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| | | | | |
|----|----------------------------------------------------------------------------|---|--------------------|---|
| | Chaitanyakrishna Dukkipaty, Mithilesh Chaudhari, Shadrak Gurupnor | | | |
| 3. | Shubham Singh Bisht, Diksha Verma, L. Elangovan | - | Eye Blink Reminder | - |

Sample Photographs of the Event/Activity



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| Sr. No. of Event / Activity | Day/ Date | Year | Month | Time | Venue | Description of Activity |
|------------------------------------|------------------|-------------|--------------|------------------------|---------------|-----------------------------------------|
| 11. | 18 th | 2019 | March | 5:45 P.M. to 7:30 P.M. | B309 and B313 | Workshop on Web Development using Flask |

Details of participation in the event/ activity

| No. of students | COMP | ETRX | EXTC | IT | MECH | Total no of participants |
|------------------------|-------------|-------------|-------------|-----------|-------------|---------------------------------|
| FY | | | | | | 24 |
| SY | | | | | | |
| TY | | | | | | |
| LY | | | | | | |

Report of event/ activity

Event: Workshop on Web Development using Flask

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Speakers:

| Lab No. | Speakers |
|---------|----------------------------------------------------------------------|
| B309 | Darshan Chheda (Jt. Financial Secretary) and Priyanka Kale (PR Team) |
| B313 | Smit Vora (Event Team) and Ankita Patil (PR Team) |

Description:

- This workshop was conducted for all the FEs, SEs and TEs and was aimed at introducing the concepts of basic web development using Python and more specifically using Flask which is a Python Module used for light-weight web development. The content of the workshop was segregated into two sections based on the difficulty levels- one for the FEs and the other for the SEs/TEs.
- The speakers covering up the content for the FEs implemented a weather app using an API and throughout the implementation, they covered the following topics:
 - Introducing programming in Flask using “Hello World” program.
 - Explaining HTTP requests: GET and POST methods.
 - The need of API and requests.
 - Regarding JSON Format.
 - Rendering the HTML template.
 - Passing parameters to the HTML template.
- The speakers covering up the content for the SEs and TEs implemented BuzzNet, a common web platform for people to come forward and share their creative strings - with a title and description. Throughout the implementation, the following topics were covered:
 - Introducing programming in Flask using “Hello World” Program.
 - Explaining HTTP requests: GET and POST methods.
 - Session in Flask.
 - Database Setup, Querying and Management using SQLAlchemy.
 - User Signup and Login using Flask-User.
 - Making WTForms for user credentials and new posts using Flask-WTF.
 - Rendering the HTML template.
 - Passing parameters to the HTML template.
- At the end of the session, the students submitted feedback about the workshop. From the

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feedback received, majority of the students found the workshop to be useful. The content and the speakers were equally appreciated.

Sample Photographs of the Event/Activity



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| Sr. No. of Event / Activity | Day/Date | Year | Month | Time | Description of Activity |
|------------------------------------|---------------------------------------------------------------------------------|-------------|--------------|-------------------------------------------------------------------------------------------------------------|--------------------------------|
| 12. | 5 th - 6 th and 13 th - 14 th | 2019 | April | 10:00 P.M. on 5th April to 10:00 P.M. on 6th April and 10:00 P.M. on 13th April to 10:00 P.M. on 14th April | CodeWars 3.0 |

Details of participation in the event/ activity

| No. of students | COMP | ETRX | EXTC | IT | MECH | Total no of participants |
|------------------------|-------------|-------------|-------------|-----------|-------------|---------------------------------|
| FY | | | | | | 91 in Round 1 and 28 in Round 2 |
| SY | | | | | | |
| TY | | | | | | |
| LY | | | | | | |

Report of event/ activity

Event: CodeWars 3.0

Description:

- Code Wars is the annual inter-departmental competitive programming contest conducted by CSI on HackerRank and this year, the third edition of the same (Code Wars 3.0) was held and like every year, the competition witnessed an amazing amount of participation from all students alike.
- The purpose of the competition was to encourage all students, irrespective of year of study or department, to foray into the domain of competitive programming and try and come up with solutions to a set of coding challenges within a given time limit and also, compete on behalf of their department in the process.
- The competition was conducted in two rounds – Rounds 1 and 2 - each round consisting of 5 problems of varying difficulty. Each problem was allotted a score and a correct solution when successfully submitted was awarded that score, taking into consideration the test cases satisfied and the amount of time taken.
- Apart from individual scores, the departmental scores were calculated as well based on the following rules:
 - Scores of the top 10 coders from the department were added to the department's score.
 - For every code submission with score more than the scores of 50% of the coders, the department was awarded with 5 points.

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- For every valid registration, the respective department was given 1 point.
- Individual and departmental scores of both the rounds were combined to generate the final scores. IT emerged as the winning department with a massive score of 2959.99 with Computer following up at the second place with a score of 1967.55. The individual winners were declared as well.

Details of winners and their respective prizes

| Position | Name of the student | Department | Year of Study |
|-----------------|----------------------------|-------------------|----------------------|
| 1. | Atharva Gole | COMPS | TY |
| 2. | Uddesh Kadu | IT | LY |
| 3. | Raj Shah | IT | TY |