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

Annual Report

KJSCE Code Cell
(2016 - 2017)

K. J. Somaiya College of Engineering, Mumbai-77
(Autonomous College Affiliated to University of Mumbai)
Name of the organization/ chapter/ project: KJSCE Code Cell
List of Members/ Details of Committee: 2016 - 2017

Sr. No.	Name of the Faculty advisor/ in-charge	Department/Year	Portfolio
1.	Ms. Grishma Sharma	Computer Engineering	Faculty coordinator
2.	Ms. Dipti Pawade	Information Technology	Faculty coordinator

Sr. No.	Name of Student	Department/Year	Portfolio
1	Dipen Ved	Computer Engineering/TY	Committee Head
2	Vatsal Kanakiya	Computer Engineering/TY	Committee Head
3	Abhishek Ananthakrishnan	Computer Engineering/TY	Technical Team
4	Bhaumik Choksi	Computer Engineering/TY	Technical Team
5	Chaitya Shah	Information Technology/SY	Technical Team
6	Mansi Khara	Information Technology /TY	Technical Team
7	Sagar Doshi	Computer Engineering/TY	Technical Team
8	Nirali Ashar	Information Technology /SY	PR Team
9	Showndarya Madhavan	Computer Engineering/SY	PR Team
10	Lakshmi Natesan	Computer Engineering/SY	SE Representatives
11	Vinitra Muralikrishnan	Computer Engineering/SY	SE Representatives

K. J. Somaiya College of Engineering, Mumbai-77
(Autonomous College Affiliated to University of Mumbai)
Photo of members/ committee: 2016 - 2017

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Code Cell, KJSCE 2016 – 17

Details of events/activities held during academic year 2016 - 2017

Sr. No. of Event / Activity	Day/ Date	Year	Month	Time	Venue	Description of Activity
1.	9th	2016	August	5:30 pm to 6:30 pm	B-111	ICPC (International Collegiate Programming Contest) Meetup
2.	12th	2016	August	4:30 pm to 5:30 pm	B-507	KJSCE Codecell Handover Ceremony
3.	23rd & 24th	2016	August	5:30 PM - 8 PM	B-214 & B-215	C++ Basics and STL Workshop
4.	28th	2016	August	11 AM - 11 PM	https://www.codechef.com/KCPR2016	C++ STL Practice Contest
5.	30th & 31th	2016	August	5:30 PM - 8 PM	B - 213, B - 214, B - 215, B - 216, B - 217	Introduction to Programming Logic in Python
6.	23rd	2016	September	5:30 PM - 8 PM	B - 214, B - 215	Introduction to Competitive Programming
7.	25th	2016	September	9 PM - 12 AM	https://www.codechef.com/KJCS16	KJSCE CODESPREE
8.	30th & 1st	2016	September & October	9 AM - 9 PM	B-507	KJSCE Hackathon
9.	1st	2016	October	10:30 AM - 6 PM	B-109, B-110	KJSCE Crackathon
10.	22nd	2016	October	7 PM - 10 AM	https://www.codechef.com/ACMIND16	ACM ICPC Online Preliminary Round

K. J. Somaiya College of Engineering, Mumbai-77
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Sr. No. of Event / Activity	Day/ Date	Year	Month	Time	Venue	Description of Activity
11.	19th	2017	January	5:15 PM - 7:30 PM	B - 215, 216, 309	Workshop on Git / GitHub
12.	2nd	2017	February	5:15 PM - 7:30 PM	B - 215, 216, 316	Workshop on NodeJS and NPM
13.	8th	2017	March	5:15 PM - 7:30 PM	B - 215, 216	Workshop on Dynamic Programming
14.	12th	2017	March	10 AM – 11.59 PM	https://www.codechef.com/KCPR2017	Competitive Coding Practice Contest
15.	18 th	2017	March	09:00 PM - 11:59 PM	Contest Link	Online Coding Competition- KJSC17
16.	3rd	2017	April	5:15 PM - 7:30 PM	B - 215, 216, 316	Workshop on Game development in Python

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

Sr. No. of Event / Activity	Day/ Date	Year	Month	Time	Venue	Description of Activity
1.	9th	2016	August	5:30 pm to 6:30 pm	B-111	ICPC Meetup

Details of participation in the event/activity
(Fill wherever is applicable or information is available. At least total need to fill)

No of students / faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
11	--	--	--	--	--	28

Report of event/ activity

Event: ICPC Meetup

KJSCE Codecell's primary aim is to create world class competitive coders who can represent not only KJSCE, but also India in the ACM International Collegiate Programming Competition. However, there was not much awareness about either competitive coding or ACM ICPC in KJSCE. This meetup was organized by KJSCE Codecell to acquaint the KJSCE students with competitive coding and ACM ICPC, and to allow them enough time to prepare for the same. The benefits and methodologies of competitive coding were first discussed. The rules and format of the ACM ICPC were later introduced and taught, alongside tactics for excelling in it.

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity

Sr. No. of Event / Activity	Day/ Date	Year	Month	Time	Venue	Description of Activity
2.	12th	2016	August	4:30 pm to 5:30 pm	B-507	KJSCE Codecell Handover Ceremony

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						11
TY						
LY						
No of Faculty						4

Report of event/activity

Event: KJSCE Codecell Handover Ceremony

KJSCE Codecell 15 - 16 officially handed over the reign of the council to KJSCE Codecell 16 - 17 on this day. The previous Committee Head, Smit Thakkar, spoke of their endeavours and successes, ending with a vision for the new council and all future councils. Later, the new Committee Heads, Dipen Ved and Vatsal Kanakiya, spoke of their visions and goals for the council, emphasising on the importance of a senior support group for juniors in the present day and age. HOD IT Mrs. Sangeeta Nagpure and HOD Comp Mrs. Bharathi H. N. too lauded the previous council for their efforts and told of their expectations from the current one. The previous council was awarded with Letters of Appreciation from the college, and with certificates from Codechef, our parent organisation.

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity

Sr. No. of Event / Activity	Day/Date	Year	Month	Time	Venue	Description of Activity
3.	23rd & 24th	2016	August	5:30 PM - 8 PM	B-214 & B-215	C++ Basics and STL Workshop

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						40
TY						
LY						
No of Faculty						--

Report of event/ activity

Event: C++ Basics and STL Workshop

The two day workshop was organised in order to familiarize the students with C++ and the C++14 standard, alongside introducing them to the STL (Standard Template Library), a collection of pre - written containers and algorithms. Participants were taught from scratch, with no assumptions made of their knowledge. They were taught everything from shifting to GCC from Turbo C, Namespaces, Standard I/O and Strings to STL Containers like Sets, Maps, Vectors, Pairs, etc. It was a hands on event, where participants not only learnt the nuances of this language, but also applied to various problems on Codechef, thus giving them valuable experience in the usage of the same. Students from all branches and from SY/ TY/ LY were invited to participate in the programme. Online feedback was taken at the end of each day, and it was highly positive. A document was circulated to all students of the college pertaining to the contents of the workshop. This effort too was appreciated by the students of the college.

. Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity
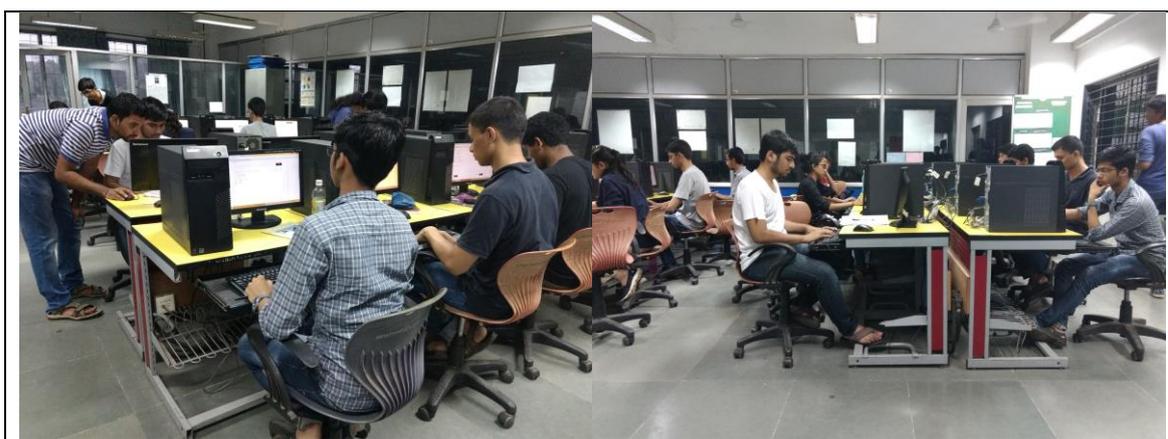
Sr. No. of Event / Activity	Day/Date	Year	Month	Time	Venue	Description of Activity
4.	28th	2016	August	11 AM - 11 PM	https://www.codechef.com/KCPR2016	C++ STL Practice Contest

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						41
TY						
LY						
No of Faculty						--

Report of event/ activity

Event: C++ STL Practice Contest
Based on the C++ STL Workshop, a closed practice contest was held for all students of KJSCE on Codechef. The contest had 5 problems of varying difficulty set by the committee members of KJSCE Codecell. 36 participants from across KJSCE, DJSCE, and PICT colleges were able to solve at least 1 problem. This was a great opportunity for students to get accustomed to the language C++ and its nuances and to competitive programming

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity
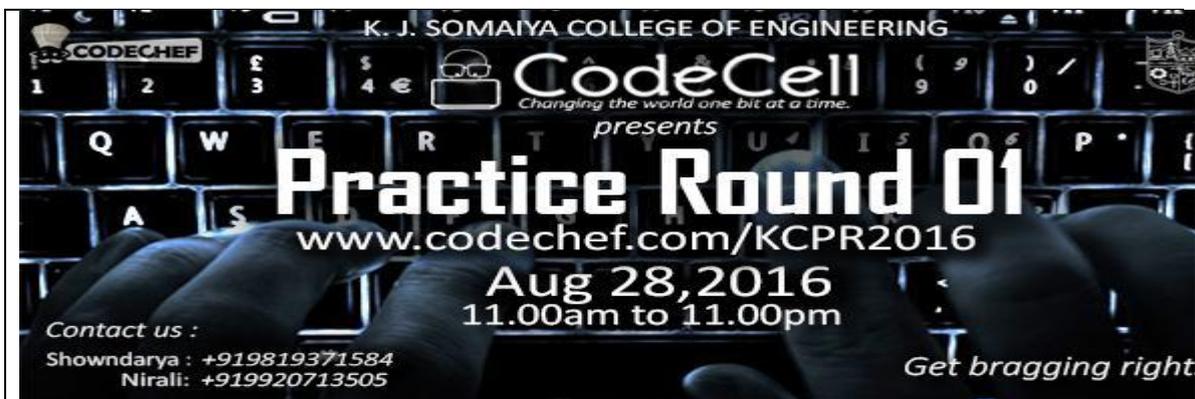
Sr. No. of Event / Activity	Day/Date	Year	Month	Time	Venue	Description of Activity
5.	30th & 31th	2016	August	5:30 PM - 8 PM	B - 213, B - 214, B - 215, B - 216, B - 217	Introduction to Programming Logic in Python

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						107
TY						
LY						
No of Faculty						--

Report of event/ activity

Event: Introduction to Programming Logic in Python

This workshop was organized for all branches and all years including FYs, but the key demographic were the FY students. This workshop was taken as a primer for the FYs to understand key principles like data, data types, type casting, variable, branching, looping, arrays, strings, and python specific commands like sort/ sorted, lists, tuples and dictionaries. Python was chosen for this purpose because of its relatively easy syntax and semantics, which are closer to human language. This was a hands on workshop where not only were the FYs taught these concepts, but also asked to practice them out on an online interpreter. They were also asked to apply these concepts in solving problems on Codechef, thus introducing them to competitive coding as well. The crowd participation was immense in the workshop, with all 11 members of the council stretched throughout both days. Online feedback was taken from all participants for the workshop at the end of the second day, and the feedback was very positive, with most students happy with having their perspectives of Computer Science changed. After the workshop, a document was sent to all participants of the workshop, pertaining to its contents. This effort was appreciated by all students.

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity

Sr. No. of Event / Activity	Day/Date	Year	Month	Time	Venue	Description of Activity
6.	23rd	2016	September	5:30 PM - 8 PM	B - 214, B - 215	Introduction to Competitive Programming

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						28
TY						
LY						
No of Faculty						--

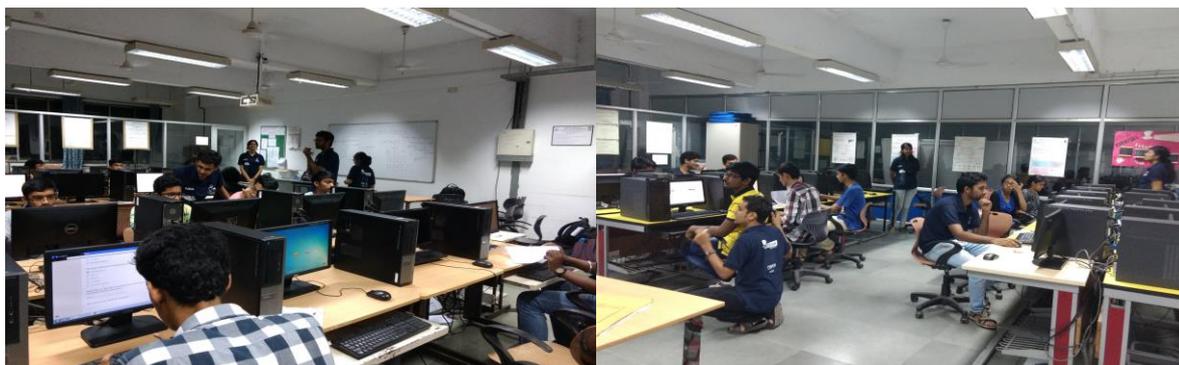### Report of event/ activity

Event: Introduction to Competitive Programming

This workshop was organized for students from all branches and years. Participants were introduced to competitive programming and were taught how to approach competitive programming questions. It was hands on workshop, where participants got to implement and solve 4 problems on Codechef. This was done under the supervision of the committee members, who are all well accustomed to competitive programming. This allowed the participants to rehash their concepts and get a complete grasp on CP with our help. At the end of the workshop online feedback was taken from all participants. The feedback was positive, with most participants agreeing to get a liking for competitive programming, with an intention to continue

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
1	--	--	--	--

Sample Photographs of the Event/Activity

Sr. No. of Event / Activity	Day/ Date	Year	Month	Time	Venue	Description of Activity
7.	25th	2016	September	9 PM - 12 AM	https://www.codechef.com/KJCS16	KJSCE CODESPREE

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						217
TY						
LY						
No of Faculty						--

Report of event/ activity

Event: KJSCE CODESPREE

Code Spree is an Abhiyantriki pre-event. It was an online programming competition hosted on Codechef on the 25th of September 2016 (One week before Abhiyantriki). This was a National Level Contest. The task in CodeSpree was to write the solution to a given problem statement in C, C++, Java or Python. The difficulty level was from beginner to hard. The contest was open to all participants from around the world. However, only participants from India were considered for the prize. Top 20 participants from Mumbai were also be invited to Abhiyantriki onsite event Crackathon, and were eligible directly for Final round. After the contest was over, editorials were uploaded describing the ideal approach and the problems were transferred to Codechef's practice collection for everyone to practice

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity

Sr. No. of Event / Activity	Day/ Date	Year	Month	Time	Venue	Description of Activity
8.	30th & 1st	2016	September & October	9 AM - 9 PM	B-507	KJSCE Hackathon

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						73
TY						
LY						
No of Faculty						--

Report of event/ activity

Event: KJSCE Hackathon

The Hackathon was the first event of its kind to take place in the Somaiya Vidyavihar and Ayurvihar campuses. It was co - organized by KJSCE Codecell, CSI - KJSCE, Bloombox KJSCE and KJSCE Student council. Over 70 participants across 17 teams came together to hack together various software solutions towards the problem statement of "Propose solutions that make life easier for the aged". After 2 days of straight coding, a lot of wonderful software were created. The judges, Mr Sanket Vaidya (an alumnus of KJSCE) and Mr. Vishal Mehrotra from TCS went through all the submissions and presentations and adjudged one the winner.

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity

Sr. No. of Event / Activity	Day/ Date	Year	Month	Time	Venue	Description of Activity
9.	1st	2016	October	10:30 AM - 6 PM	B-109, B-110	KJSCE Crackathon

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						105
TY						
LY						
No of Faculty						--

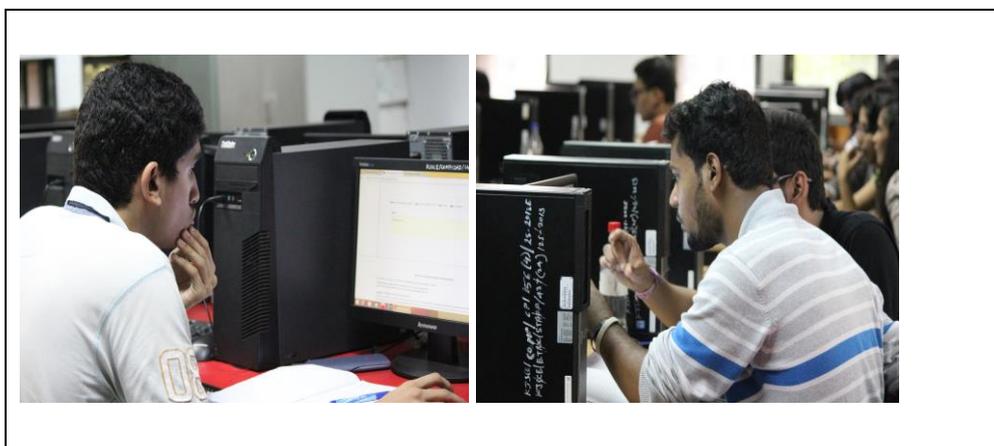**Report of event/ activity**

Event: KJSCE Crackathon

Crackathon was a full day competition planned for Abhiyantriki 2016. Participants were tested on basic coding and problem solving skills. It was divided into three rounds of increasing complexity. The first two rounds were elimination rounds, whereas the final round was a knockout round. Teams consisted of maximum two participants. There were prizes for the top two teams in the final round, and goodies to runner-up. Some participants were be invited to the final round on the basis of the pre - event as well. All teams which qualified through both rounds reached the third round. The third round was a ranked contest of 150 min which was hosted on Codechef, where the top team could solve 4/6 problems.

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity

Sr. No. of	Day/Date	Year	Month	Time	Venue	Description of

Event / Activity						Activity
10.	22nd	2016	October	7 PM - 10 AM	https://www.codechef.com/ACMIND16	ACM ICPC Online Preliminary Round

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						54
TY						
LY						
No of Faculty						--

Report of event/ activity

Event: ACM ICPC Online Preliminary Round

ACM-ICPC, the Olympics of programming contests, had its first preliminary online round for India on Codechef. KJSCE Codecell always sent updates of ACM ICPC to the KJSCE students and also help them through the registration of their team. A total of 18 teams participated in this round. A huge rise was observed compared to previous team count of 2. All teams could solve at least 1 problem while the first team could solve 4/6 problems. All the participants were serious about this competition and most of them had a great time participating. KJSCE would be represented in Amritapuri and Chennai regionals in December 2016.

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity

K. J. Somaiya College of Engineering, Mumbai-77
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Sr. No. of Event / Activity	Day/Date	Year	Month	Time	Venue	Description of Activity
11.	19th	2017	January	5:15 PM - 7:30 PM	B - 215, 216, 309	Workshop on Git / GitHub

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

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

Report of event/ activity

Event: Workshop on Git / GitHub

Version Control Systems and open source contributions are essential to a computer scientist's growth. With that in mind, KJSCE Codecell hosted a workshop on Git and GitHub, where participants were taught the basics of git like installation, commits, staging / unstaging, reset, branches, etc. They were then taught the proper methodology of using GitHub to contribute to or collaborate on open source projects. As practice, participants were asked to contribute to a repository specially created by KJSCE Codecell. The results can be seen here - http://kjsce-codecell.github.io/Contributions. Later a cheat sheet on GitHub was circulated for all the students of KJSCE. It can be found here - https://github.com/KJSCE-Codecell/Git-CheatSheet. The feedback on the workshop was generally positive.

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity
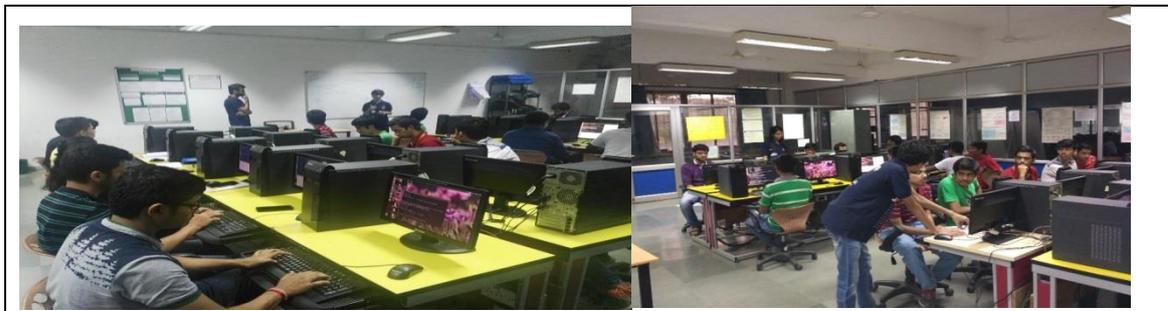
Sr. No. of Event / Activity	Day/Date	Year	Month	Time	Venue	Description of Activity
12.	2nd	2017	February	5:15 PM - 7:30 PM	B - 215, 216, 316	Workshop on NodeJS and NPM

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						45
TY						
LY						
No of Faculty						--

Report of event/ activity

Event: Workshop on NodeJS and NPM

Web Development has evolved a lot over the years. JavaScript, from being the language for front end is prominently being used in the backend. Keeping this in mind, KJSCE Codecell conducted a workshop on NodeJS and NPM. NodeJS is a JavaScript runtime environment used to host servers and NPM is its package manager. Participants were taught basic of JavaScript, initialization and configuration of NodeJS server, creation of NodeJS applications or modules, and uploading of modules to NPM. Using the skills taught, a basic twitter bot was created by all participants which retweeted and favorited the most recent tweet with a particular hashtag periodically. The workshop received overall positive feedback from the participants. A cheat sheet was distributed to all students via mail which can be found here https://github.com/KJSCE-Codecell/NodeJS-CheatSheet.

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity

Sr. No. of Event / Activity	Day/Date	Year	Month	Time	Venue	Description of Activity
13.	8th	2017	March	5:15 PM - 7:30 PM	B - 215, 216	Workshop on Dynamic Programming

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						36
TY						
LY						
No of Faculty						--

Report of event/ activity

Event: Workshop on Dynamic Programming

Dynamic Programming is a handy tool in any programmer's arsenal, let alone a competitive programmer. In this workshop, students were introduced to the concepts of time complexity, recursion, and dynamic programming using top down and bottom up methods. It was a hands on workshop where students were guided through solving three problems on CodeChef. The solutions to these problems can be referred by the students on our GitHub account.

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity

K. J. Somaiya College of Engineering, Mumbai-77
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Sr. No. of Event / Activity	Day/Date	Year	Month	Time	Venue	Description of Activity
14.	12th	2017	March	10 AM – 11.59 PM	https://www.codechef.com/KCPR2017	Competitive Coding Practice Contest

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

| No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						51
TY						
LY						
No of Faculty						--

Report of event/ activity

Event: Competitive Coding Practice Contest

Based on the Competitive Coding, a closed practice contest was held for all students of KJSCE on Codechef. The contest had 5 problems of varying difficulty set by the committee members of KJSCE Codecell. 29 participants from across colleges were able to solve at least 1 problem. This was a great opportunity for students to get accustomed to the language C++, Java, Python and its nuances and to competitive programming

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity
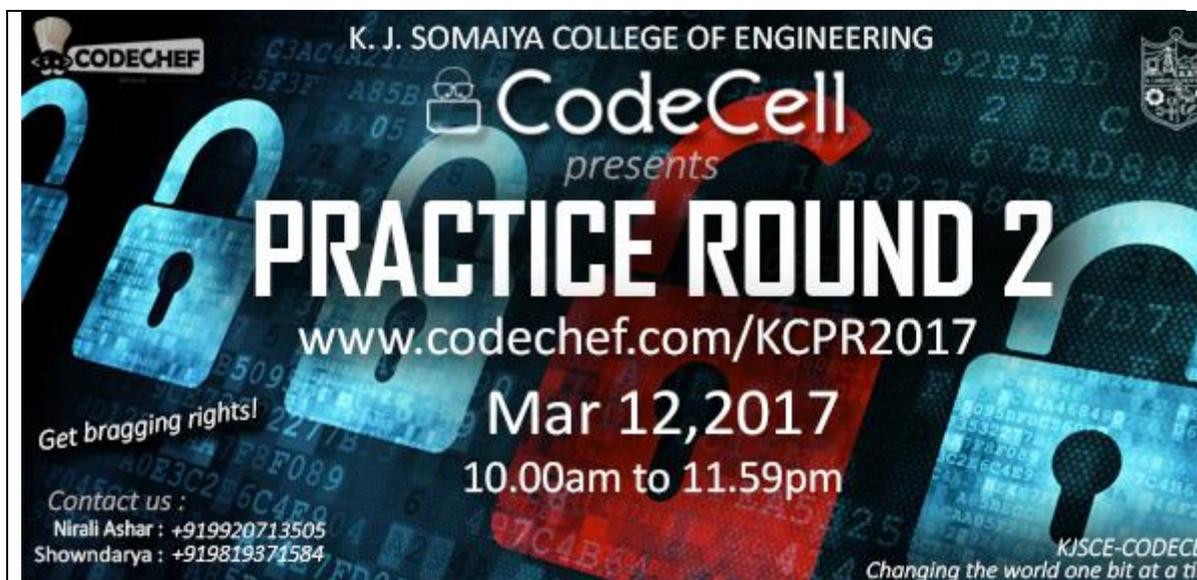
Sr. No. of Event / Activity	Day/Date	Year	Month	Time	Venue	Description of Activity
15.	18th	2017	March	09:00 PM - 11:59 PM	Contest Link	Online Coding Competition- KJSC17

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						209
TY						
LY						
No of Faculty						--

Report of event/ activity

Event: Online Coding Competition- KJSC17

With all the practice rounds, our students have become quite familiar about the format of competitions. But to give them an experience of the global competition that pertains, we here at Codecell hosted an online coding competition open for the Brainiac's across the globe. This competition witnessed tremendous participation by a lot of curious students across varied institutions spanning the globe. The top three performers were awarded with laddus from Codechef with which many fabulous goodies can be bought. The top performer across Mumbai received 2000□/- cash and from our college received 500□/-

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity

Sr. No. of Event / Activity	Day/Date	Year	Month	Time	Venue	Description of Activity
16.	3rd	2017	April	5:15 PM - 7:30 PM	B - 215, 216, 316	Workshop on Game Programming in Python

Details of participation in the event/ activity
(Fill wherever is applicable or information is available. At least total need to fill)

No. of students/ faculty	COMP	ETRX	EXTC	IT	MECH	Total no of participants
FY						
SY						49
TY						
LY						
No of Faculty						--

Report of event/ activity

Event: Workshop on Game Programming in Python

Object Oriented Programming and Design is a skill that is extremely important. To develop this skill and master it, KJSCE Codecell hosted a workshop on 'Game Programming in Python', where the students had been introduced to Object Oriented Programming in Python. The students were taught the importance of the same through its practical use in developing a simple racing game in Python. The code was later made available on the Github account of KJSCE Codecell.

Details of prizes (wherever applicable fill all the entries)

Sr. No.	Name of the student	Department/Year	Details of prize won	Remarks
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Sample Photographs of the Event/Activity