Criteria - II	Teaching-Learning and Evaluation	350

CRITERION-II (TEACHING-LEARNING AND EVALUATION)

2.3 TEACHING – LEARNING PROCESS (40)

2.3.1- Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences using ICT tools

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DAV INSTITUTE OF ENGINEERING AND TECHNOLOGY, JALANDHAR	
DEPARTMENT OF APPLIED SCIENCES	

TEACHING-LEARNING ACTIVITY

Name of Activity	**Think-draw-Share**
Date	**19-05-2022**
Class	**B.Com 2ⁿᵈ Semester**
Academic Year	**2021-22**
Course name	**ENVIRONMENTAL STUDIES (EVS 102-18)**
Faculty Coordinator	**Dr. Bhupinder Singh**

Context: This is a group activity. The aim of this activity is to make the students think over the given current environmental issue in groups, get involved with the other groups of their classmates for discussion about the given environmental issue, its impact on life on this planet and feasible solutions. In this way they engage more with each other, learn more and accomplish more with active learning.

Activity Description

- ❖ Firstly, a **lecture** on the topic of water and air pollution was delivered by the faculty mentor followed by discussion on various aspects of the issues.

- ❖ Students were given home assignment to prepare posters elaborating environmental issues and sustainable development.

- ❖ Pairs of students were formed as per their choice and comfort zone to get better outcome.

- ❖ Open-ended questions were posed and asked the students to come up with their best answers through discussion with each other.

- ❖ Got two pairs together, allowed 10 minutes time to discuss.

- ❖ Then invited them on the front to discuss their thought process with the whole class openly.

- ❖ The other students were prompted to get involved in the discussion.

- ❖ Likewise other pairs were appraised.

Course Outcomes covered:

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.

2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.

3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.

4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

Photos of activity
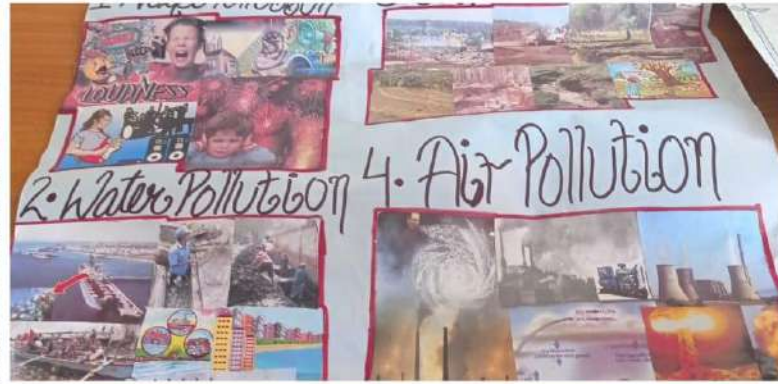
Critics

Following are the observations of this activity:

- Students considered this activity as a richer learning experience.
- . They actively discussed and presented the given topics on environmental issues of everyone's concern.
- Students experienced the importance of peer learning, team work and soft skills.
- They learnt about their social obligations.

Name of Activity	Mind Map: Problem Solving (Hypothesis Testing)
Class	B. Tech. (CSE-I(B)) Semester: 2
Academic Year	2021-22
Course name	Probability & Statistics: BTAM204-18
Semester	2nd Date: 11 May, 2022
Faculty Coordinator	Ashwani Kumar (Department of Applied Sciences)

Context: Planned activity is the group activity. Basically student involvement, thinking on problem statement, group discussion among the team and identification of solution is done.

Four groups of 6-6 students formed as per the choice of students and comfort zone to get better outcome. Each group has assigned a group leader (on the bases of performance in the previous assessments) and given a **problem to solve**. The problem statements will be different for each group so that the group members concentrate on their own problem. Leader first explain the topic to the group to which the problem is concerned and the method to solve the problem (if required) so that every member become a master to solve the problem. Then leader of the group will discuss the given problem with the group members and decide and distribute the tasks among the group members for timely submission of task. This will help students to **work in a team** and the leader member to enhance his/her **leadership qualities**. During their task of problem solving students are kept free to ask any doubt or query with the teacher. After all satisfactory discussion, students sit together (group wise) and prepare a solution for the given problem statement. Once the flowchart of the methodology and problem solution is ready, students have to draw the complete details on a chart paper and present in front of the complete class. It is kept mandatory for every member of the group to present a part of the problem solution which will **enhance the communication skill** of every individual student and will **remove the stage fear** of the students. The instructor and other students are expected to ask the cross questions and get involve in each other's work.

Activity Description

Step1- A lecture on the topic was earlier delivered
Step 2- Selection of team members as per choice and comfort level and assigning a leader.
Step 2- Assigning problem to solve to each group
Step 4- Discussion on topic related to problem within group by the leader
Step 4- Discussion on solution to the problem and explain methodology of it within group.
Step 3- Distribution of tasks by leader in coordination of team members
Step 5- Finalization of most suitable solution
Step 6- Drawing the complete flow chart, solution and key points on chart
Step 7- Presentation of the solution to problem given and chart in front of the class
Step 8- Discussion and answering the questions by friends and teacher.

Practice (Problem Statement, Rubrics)

1. This activity will be in class activity. **This will be graded activity**. Students groups will be formed with 6 students per group. Problem statement is given well in advance to students so that they can get prepared well and come with the required solution. 20 minutes will be given for understanding topic and discussion among the members after giving problem before presentation.
2. After 20 minutes instructor will announce the time and take review on student's performance. Students will be instructed to present the work in front of complete class.
3. Faculty will coordinate and will help students in clarifying the understanding of the problem statement and the topic anytime.
4. Faculty then will invite each group to present their poster and explain the flowchart and problem solving methodology. Likewise every group will be evaluated.
5. Faculty will give feedback (reflections on performances) on every group's performance.
6. All groups will be asked to submit a chart on the activity including flowchart, problem solution and the key points.
7. Forum will kept open for suggestions and discussions.
8. Questions sample:

Sr. No.	Problem Statements	COs	RBT Level
1	In a hospital 475 female and 525 male babies were born in a week. Do these figures confirm the hypothesis that male babies born more as compared to female babies?	CO3	L6
2	In a city a sample of l000 people were taken and out of them 540 are vegetarian and the rest are non-vegetarian. Can we say that the both habits of eating (vegetarian or non-vegetarian) are equally popular in the city at (i) 1% level of significance (i) 5% level of significance?	CO3	L6
3	325 men out of 600 men chosen from a big city were found to be smokers. Does this information support the conclusion that the majority of men in the city are smokers?	CO3	L6
4	Random sample of 400 men and 600 women were asked whether they would like to have a school near their residence. 200 men and 325 women were in favour of proposal. Test the hypothesis that the proportion of men and women in favour or the proposal are same at 5% level of significance.	CO3	L6
5	ln a town A, there were 956 births of which 52.5% were males while in towns A and B combined, this proportion in total of 1406 births was 0.496. 1s there any significant difference in the proportion of male births in the two towns?	CO3	L6
6	A sample of 1000 students from a university was taken and their average weight was found to be 112 pounds with a S.D. of 20 pounds. Could the mean weight of students in the population be 120 pounds?	CO3	L6
7	A random sample of 200 measurements from a large population gave a mean value of 50 and a S.D. of 9. Determine 95% confidence interval for the mean of population.	CO3	L6

Criteria	Ratings				Pts.
	10	**08**	**06**	**04**	
Flowchart making & problem solution	Correct Solution with proper explanation and correct answers to all logical asked questions during presentation	Correct Solution with good explanation failed to answer two OR more than two basic questions asked during explanation	Partially correct solution to the problem with limited explanation	Wrong solution with no/partial explanation	**10**
	5	**4**	**3**	**1**	
Chart making and presentation	Poster prepared with correct Flowchart & neat & complete explanation	Poster prepared with correct flowchart & incomplete explanation	Poster prepared with Partially correct design and explanation	Poster prepared with in correct design and explanation	**05**
				Total	**15**

Evidence of Success / Outcome / Post reflection:

This activity basically help the students in developing the various essential qualities among them like, team work, group discussion, involvement, thinking and learning critical topics, presentation skills, communication skills and leadership qualities and removal of stage fear of the students. Students are motivated to work well and produce good results. Also it is always desired that all the team members are involved and participated equally. Definitely student's involvement was always good and satisfactory performance is observed during the presentations.

PHOTOS OF THE ACTIVITY:

Students having a discussion in group

Mind map-chart preparation by students

Groups presented on stage one by one

D.A.V Institute of Engg. & Technology

B.Tech Electrical Engineering- 4th Semester

Batch: 2020-2024

Name of Activity: ZIGSAW

Date: 10.05.22

Context: Jigsaw helps students learn cooperation as group members share responsibility for each other's learning by using critical thinking and social skills to complete an assignment. Subsequently, this strategy helps to improve listening, communication, and problem-solving skills.

Step 1: Divide students into groups of 4 people per group. ...

Step 2: Divide your content into 4 chunks. ...

Step 3: Assign one chunk of content to each person in the Jigsaw Group. ...

Step 4: Have students meet in Expert Groups. ...

Step 5: Students return to Jigsaw Groups. ...

Step 6: Assess all students on all the content.

Phase 1: Students meet in home groups

1	2
3	4

1	2
3	4

1	2
3	4

1	2
3	4

Phase 2: Students meet in expert groups

1	1
1	1

2	2
2	2

3	3
3	3

4	4
4	4

Phase 3: Students return to home groups to teach ….

1	2
3	4

1	2
3	4

1	2
3	4

1	2
3	4

Practice (Problem Statement , Rubrics)

Home Group

For the first part of the activity, students require to group into their HOME group. Each HOME group consists of four students which has been assigned different topics of Minimization Technique. The classification of subtopics are as follows:

1. Boolean Algebra
2. De-Morgan's Theorem
3. 4-Variables K-Map
4. 5-Variables K-MAP

	Student 1, Expert on	Student 2, Expert on	Student 3, Expert on	Student 4, Expert on
Minimizations Techniques	Boolean Algebra	De-Morgan's Theorem	4-Variables K-Map	5-Variables K-MAP

15

EXPERT GROUP

In the next phase, students need to go to the EXPERT group (Group with the same topic) where they are sharing their own opinions and explanations regarding the assigned topics. After they achieved a good understanding regarding the topics, they will proceed to sketch the notes interactively to enable their HOME group to understand their given topics.

JIGSAW ROTATION

In the last part of the activity, students need to return to their respective HOME group. After that, each students will explain the given subtopics to their fellow HOME group members based on the designed notes in the previous procedure. Their fellow group members can ask any questions and they can make a short discussion regarding the explained topics.

Q. No. 1	Question Description	Marks	CO Mapped	Bloom Taxonomy
1	Prove that if A+B= A+C and A'+B=A'+C, Then B=C Draw Circuit Diagram	5	2	6
2	By using De-Morgan's theorem implement the following equation and also implement the circuit using AOI [(ABC+AB')' + BC]'	5	2	6
3	Minimize the following expression using K-Map and implement the circuit using NAND gates only $Y = \sum m(2,3,4,5,13,15) + \sum d(8,9,10,11)$	5	2	6
4	Minimize the following using K-map: $Y(A,B,C,D,E) = \Pi m(0,5,7,10,11,14,15,16,21,26,27,30,31)$	5	2	6
	Total	20		

Rubrics of the Activity

Criteria	Ratings				points
This criteria is linked to a course process. Draw Circuit Digram	5-Points Solve and Draw	2.5 points for Solution 2.5 points for Draw the circuit diagram	0 points for no description		5-Points
This criteria is linked to a course process Apply Demorgans theorem Implement the circuit by using AOI	5-Points Solve and Draw	2.5 points for Solution 2.5 points for Draw the circuit diagram	0 points for no description		5-Points
This criteria is linked to a course process Minimizaion by using K-Map(4-variables) Realize by using NAND gates	5-Points Solve and Draw	2.5 points for Solution 2.5 points for Realization by using NAND gates	0 points for no description		5-Points

This criteria is linked to a course process Minimizaion by using K-Map(5-variables) Using POS form	5-Points Solve and Draw	2 marks for Graphical representation 3 marks for minimize the function.	0 points for no description	5-Points

DAV Institute of Engineering & Technology, Jalandhar
Department of Electrical Engineering

Class: B.Tech EE- 4th Sem	Batch: 2020-2024

Subject: Digital Electronics	Subject Incharge: Dr. Neeru Malhotra

Activity Name: Jigsaw

S.No.	Class Roll No.	University Reg. No.	Name of Student	Signature
1	302/20	2003695	Drishti Bhatia	@bhatia
2	303/20	2003696	Kishpreet Kaur	Kishprut.
3	304/20	2003697	Navraj Singh	Navraj Singh
4	305/20	2003698	Rajanpreet Singh	Ab.
5	306/20	2003699	Rajat	Rajat Arora
6	307/20	2003700	Sahit Devgan	Sahit Devgan
7	308/20	2003701	Shifali Sharma	Shifali Sharma
8	309/20	2003702	Tushar Gill	Tushar
9	371/19	1903741	Kaushal Kumar	Ab.
10	311/20	2103332	Abhihek Prasher	Abhishek
11	312/20	2103333	Akhil Sharma	Akhil Sharma
12	313/20	2103334	Amandeep Kaur	Aman
13	314/20	2103335	Ashish Koundal	Ashish
14	316/20	2103337	Deepak Kumar	D Kumar
15	317/20	2103338	Dheeraj Kumar	Dheeraj kumar.
16	318/20	2103339	Jujhar Singh	Jujhar Singh
17	320/20	2103341	Nikhil Kumar	Ab.
18	321/20	2103342	Prabhat	Prabhat
19	322/20	2103343	Rahul Sahota	Rahul Sahota
20	323/20	2103344	Tarun Sharotry	Tarun
21	324/20	2103345	Vishal	Ab.
22	354/19	1903688	Sonu Singh	Ab.

(Dr. Neeru Malhotra)

Name of the Activity: ROLE PLAY ON NIRAV MODI PNB SCAM

Class: MBA 2nd Sem
Subject: LEGAL ENVIRONMENT FOR BUSINESS
Year: 2021-23
Context:
This is a group activity. It involves planning, scripting, executing, acting, and performing.

The activity was allotted on 26 April 2022 and will be conducting on 13 May 2022 in the 4th lecture in Room No. 28.

We would like to express our heartiest gratitude to our teacher Dr. Megha M. Sharma, who gave us a golden opportunity to do this wonderful activity regarding the legal case of NIRAV MODI SCAM. Her continuous input and support have helped us to complete this activity. This role-play activity has helped everyone to learn something new and enhance their communication skills, confidence, management skills, and ensure coordination among the team.

This is a group activity, a team of 12 members who are presenting the role play on the NIRAV MODI PNB SCAM. The play will help in knowing the various unknown facts about the case. It will enhance our confidence and will help every member of the team to explore their acting skills. Every team member is giving their best. Every member is acting as a helping hand in the difficulties of each other. All of us are showing our full support and coordination to make this play successful and knowledgeable.

ACTIVITY DESCRIPTION

The basis of the activity is for each person to become an expert in the subject and then to teach that information to their peers. It can be somewhat confusing to figure out how to group the students, but if you have the patience to try it, it can be an excellent resource when you need to convey a lot of information in a small amount of time.

1. Students are playing the different characters involved in the scam. Each character has equal importance and relevance in the play.
2. The activity is basically about the deep study of how the fraudulent activities were being conducted by Nirav Modi which were unknown to law and order and financial institutes of the country for a long time.
3. Group of 12 members is made and asked to conduct the whole scam in the form of roleplay.

Roleplay exercises give students the opportunity to assume the role of a person or act out a given situation. These roles can be performed by individual students, in pairs, or in groups which can play out a more complex scenario. Basically, it is the practice of having students take on specific roles - usually ones in which they are not familiar - and act them out in a case-based scenario for the purpose of learning course content or understanding. Role plays engage students in real-life situations or scenarios that can be "stressful, unfamiliar, complex, or controversial" which requires them to examine personal feelings toward others and their circumstances.

The main aim of conducting this activity is to introduce an effective learning atmosphere where students can relate to the theoretical knowledge through the act of play. The theoretical subject matters become easy to understand when they are explained in simplified and cinematic presentations.

HOW IT IS CONDUCTED

1. Team of 12 members is created. Everyone is asked to search about the case study of the scam. Viewpoints regarding the execution and planning are contributed by everyone.
2. One voluntary member solely writes the screenplay and dialogue for each character.
3. The write-up of the script shows the writer's dedication, hard work, and commitment to his work.
4. Then characters were allotted to every one according to their compatibilities and communication skills.
5. Use of a projector, chairs, tables, narrator, audio, and videos is made to make it more impactful and realistic.
6. Continuous practices were done to manage the coordination and synchronization of scenes.
7. It will be performed in our classroom, room no.28 in front of our teacher and other classmates.
8. The role play is about 20 mins.
9. We have tried to make our audience understand, how actually scam was being conducted by Nirav Modi by issuing a FAKE LETTER OF UNDERTAKINGS.
10. We have explained the various terms like LOUs, SWIFT, MONEY LAUNDERING, and CBS through the case. Also, how Nirav Modi and his uncle Mehul Choksi misused the loopholes of our country's financial system for their benefit.

WHAT WE HAVE LEARNT FROM IT

Everyone has furnished their communication skills and enhanced their confidence level. Many of us have overcome their stage fear. The continuous support and guidance from our worthy teacher Dr. Megha M. Sharma mam have helped us in making the challenging thing possible easily.

Everyone was initially nervous and quite worried about how things will happen but the support and courage we got from our classmates made us enthusiastic. We have learned to manage things with available resources.

<u>WHAT WE EXPERIENCED</u>

During and after this activity we have learned and will be working on our mistakes:

ESHAN: I worked on my body language and interaction with the audience

HARDHIKA: I felt confident and motivated to participate in these activities.

SHIVANI: I worked on my tone and pitch of speech.

ASHIMA: I felt confident and ensured my participation in the future.

AVINASH: It helped me to improve my communication skills

AKASH: How to be a team player

ANJALI: It's a very new experience for me before I never did any kind of roleplay. This activity helps me to enhance my confidence.

RITAMBHARA: I learned how to express different emotions, expressions, and the importance of lawyers in legal cases. Overall, it helped me to showcase the best version of myself.

NEEL: I furnished my skills like coordination, teamwork, and collective efforts.

MANSI ANAND: It improved my communication skills.

AARUSHI: It increased my social space and developed my listening as well as speaking skills. This Roleplay was a flexible tool that helped me to make a sense of theory through practical experience.

SOURAV: It was my first time doing a roleplay. I got out of my comfort zone and gained human interaction.

FUN WHILE WE LEARN
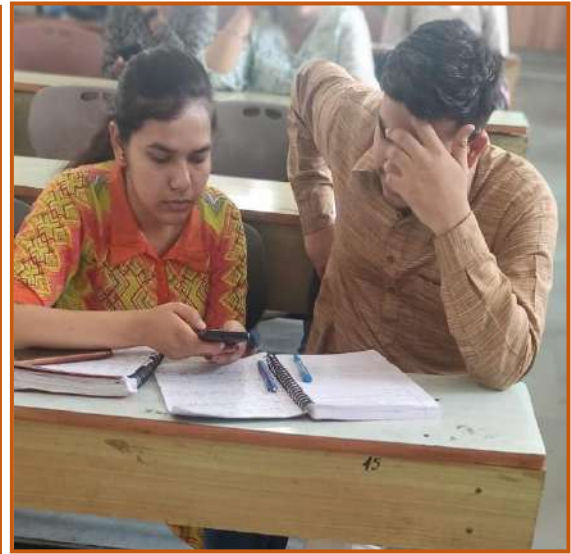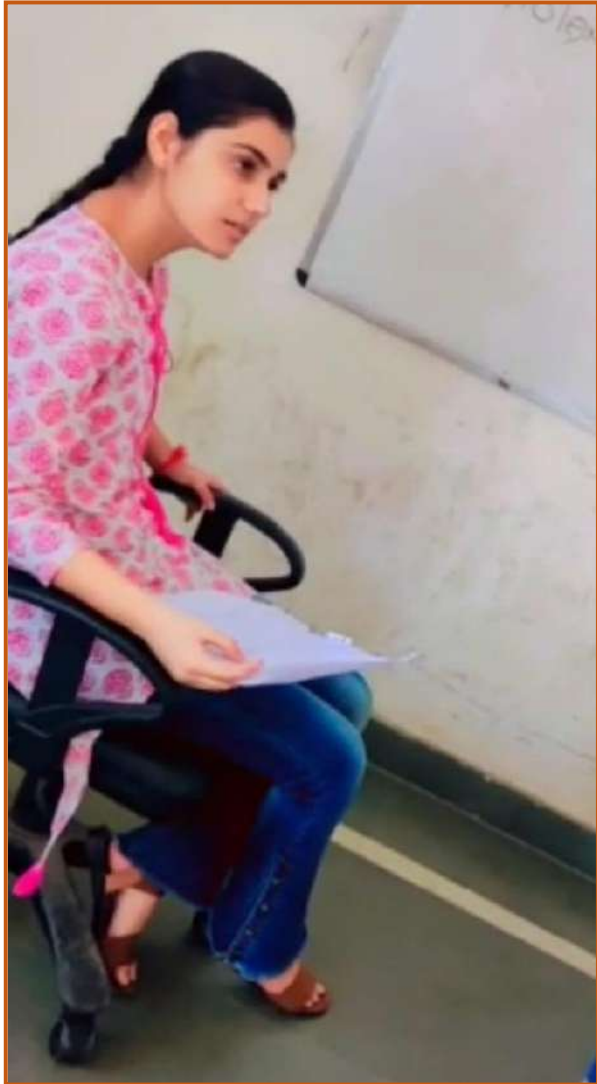
THE FINAL SHOT

SCENE 1 & SCENE 2

SCENE 3

SCENE 4

SCENE 5

THE END

TEAM NIRAV MODI

BEFORE THE ROLE PLAY

OUR TEAM AFTER SUCCESSFULLY EXECUTING THE ROLE PLAY

ONE WITH OUR SUPPORT SYSTEM

AT LAST, WE CONCLUDE THAT IT WAS A FABULOUS EXPERIENCE AND WE ALL ENJOYED PERFORMING THIS ACTIVITY VERY MUCH. THANK YOU, OUR RESPECTED TEACHER, FOR THIS OPPORTUNITY.

DAV Institute of Engineering & Technology, Jalandhar
Department of Electrical Engineering

Ref. no..ΕΕ/1008

Dated:-22nd October, 2020

Departmental Circular

It is for the information of all the faculty/staff and students of 3rd, 5th & 7th Semester of Electrical Engineering that department is going to organize an "Expert Lecture" titled **"Integration of Renewable Energy Sources in Competitive Power Market"** by Dr. Naveen Sharma, Assistant Professor, Electrical Engineering Department, Punjab Technical University, Main Campus on **Monday i.e. 26th October, 2020** at 11:00 AM to 01:00 P.M via **online mode.**

It is mandatory for all faculty/staff and above said students of Electrical Engineering department to attend the same and all class in-charges are also requested to take attendance of students of their respective sections.

22.10.2

HOD (EE)

CC: 1. The Principal DAVIET, for his kind information.
     2. Departmental Notice Board.

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Robo-Tug of War on 14 feb 2020

The Department of ECE had organized the event "Robo-Tug of War". The participants of event were from the department of CSE, I.T. & ECE. It is well known that in tug of war, winner is always the stronger of the two teams. For this event, the bots were put on the track and the winner is the team which pulls the opponent's bot over the mid line. At the end, the team Electronauts – Aahaana, Manpreet S and Ayush from ECE-6th Sem were declared winners. The runners up were the team MetalHeads- Ayush, Mehak Sharma and Aastha all from I.T.-2nd Sem.

Dr. Neeru Malhotra, Head, appreciated the faculty coordinators Dr. Love Kumar and Mr. Navleen S Rekhi for the success of the event. She also congratulated the student coordinators: Ajooni Walia, Harish Kumar, Mayank Verma and Harpreet Singh for their sincere efforts to prepare and motivate the participants for their active participation in the event.

At the valediction ceremony, faculty members of ECE also congratulated the winners.

Winners of Robo-Tug of war

DAV Institute of Engineering & Technology
Department of ECE

Vision of Department: To produce technically competent and socially responsible professionals
Mission of Department: To provide conducive learning environment, industry oriented training and platform for versatile development of students

Ref. No.: DAVIET/ECE/2019-20/ 2029   Dated: 09-01-2020

Circular

It is to bring to the information of all respective departments that Department of ECE under the club of *IneoCreators* is organising "Arduino Workshop" from 16th January till 21st January 2020. Any student interested in attending the workshop can register their names to Manpreet Singh (ECE-6th Sem, Cell No.: 8837750131) on or before 10th January 2020.

Dr. Neeru Malhotra

(Associate Professor & Head)

Copy to:

1. The Principal, DAVIET for his kind information.
2. All Departments
3. Website Coordinator
4. Information Notice Board

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Department of ECE, DAVIET Jalandhar organised **Robo Race 2.0**. in March, 2021

Robo race 2.0 by ECE department

DAV Institute of Engineering & Technology
Department of ECE

Vision of Department: To produce technically competent and socially responsible professionals

Mission of Department: To provide conducive learning environment, industry oriented training and platform for versatile development of students

Ref. No.: DAVIET/ECE/2019-20/ 2029　　　　　　　　　Dated: 09-01-2020

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Dr. Neeru Malhotra

(Associate Professor & Head)

Copy to:

1. The Principal, DAVIET for his kind information.
2. All Departments
3. Website Coordinator
4. Information Notice Board

Arduino Workshop in Jan 2020

24 Jan 2020 With the continuous support and blessings of The Principal, Dr. Manoj Kumar, Department of ECE under the club of Ineo Creaters had organized "Arduino Workshop" from January 16-21, 2020. The faculty coordinators, Mr Navleen S Rekhi, and Dr. Love Kumar, under the leadership of Dr. Neeru Malhotra, Associate Prof. and Head, had made the necessary arrangements for the smooth conduct of the workshop.

The theme of the workshop is to inculcate the enthusiasm of dealing the conceptual learning practically. More than 50 students had participated from various Departments of the institute. The workshop was focused on the basics of Arduino and its practical utility. The student coordinators, Daksh Vachher, Dhairya Jain, Manpreet S, Ajooni Walia , Harish Kumar and Ayush all of ECE-6th Semester had mentored the participants and conducted the practical sessions. The participants were imparted with the knowledge about various sensors, PCB layout and applications of Arduino. The discussion forum was also held before the start of every session. It helped out to clear the doubts and attained the better understanding of the development board.

The successful completion and accomplishment of theme was acknowledged from the feedback form filled by the participants. Keeping this in mind, Dr. Neeru Malhotra gave a vote of thanks and congratulate the team of co-ordiantors for success of the event. She also added to conduct more such events for creating technically competent professionals. On valediction ceremony, the certificates were given to the participants and congratulated them for fruitful participation.

Students - learning through workshop session

2. Survey camp – 2018 at Khajjiar, H.P.: The Experiential learning Exercise

Department of Civil Engineering organised a Survey camp from **5-12th June, 2018 for the of 3rd year Civil Engineering students**. This survey camp was organized at Khajjiar, Distt. Chamba (H.P.) This camp was aimed to groom Civil Engineering Students with essential knowledge and exposure to the real field work, and to encourage leadership and teamwork skills.

The Survey Camp was divided into two phases.

In 1st phase, the field work (measurements & plotting) and in 2nd phase calculations, results analysis and preparation of the topographic sheets were done. **The class of 67 students was divided into 7 groups with 9-10 students in each group** which were monitored by faculty coordinators Sh. Manish Bhutani, Assistant Professor (CE) and Sh. Gobind Khurana, Assistant Professor (CE). In the Survey camp, all students learnt the Technical aspects of surveying. The day wise schedule was provided to the students by the faculty coordinators.

Surveying process started with Reconnaissance Survey and traverse stations were located and marked. Following it, lengths and internal angles between the marked stations were measured with the help of tape and theodolite. Plane table surveying was done and all the natural and manmade features were marked. On the basis of the measured data and plotted features, topographic sheets were prepared.

Students were also introduced to the Total station (modern surveying instrument). Total station was used to verify the angles and lengths which were measured by the students with the help of theodolite and tape. Also the contouring work was completed by each group using Total Station. Levels were transferred from the milestone near to the survey site to each group using auto level and further levels of the area surrounding to all groups were recorded with the help of Total Station. Total area covered for Survey was 12,000 sq.m.

Students were thankful to the worthy Principal, Head of the department and faculty coordinators for their approval and guidance in conducting this camp successfully.

Industrial visit

Civil engineering 3rd semester students visited the sewage treatment plant (STP) at Jalandhar 11th June 2018.

3. Survey camp – 2019 at Solang Valley, H.P. : The Unique Experiential learning

The Survey Camp was organized in June 2019, with reference to the 4 weeks training after the IVth semester. This time survey camp was organised at a Hilly Terrain i.e Solang Valley,H.P.

The camp Incharge faculty:

1. Dr. Sanjay Goel, Asst. Prof, CE
2. Er. Manpreet Singh bedi, Asst. Prof, CE
3. Sudheer Kumar J, Asst. Prof, CE
4. Mr. Harvinder Kumar Gulati, Lab. Technician

The main objective:

- Traversing – using a Theodolite
- Drawing a Topographical Map of the area – using Plane Table.
- Contouring – using Dumpy/Auto Level and Shaft.

The main aim of the camp was to gain an overall experience in the field.

SCHEDULE: 1st June to 10th June.

The class was divided in groups and these groups were allocated the activities alternatively. During the initial period of the camp, students Traversed the

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Teachers use ICT enabled tools for effective teaching -learning process.

Number of teachers using ICT	Number of teachers on roll	ICT tools and resources used	Number of ICT enabled classrooms	Number of smart classrooms	E- Resources and Techniques used
122	122	Projectors smart boards video lectures, Learning management system LAN/Wi-Fi, Microsoft teams, Webinars, Google forms	22	2	Nptel, online courses and certification
					Swayam Central
					YouTube vidoes
					Ebooks: E resources, e-journals, nptel NPTEL course ebook SWAYAM Cogprints MathGuide SocioSite libraries Virtual Library Internet Public Library Project Gutenberg Read Print
					National Digital Library of India
					LearnEngg app

Principal
D.A.V. Institute of Engineering & Technology
Kabir Nagar, Jalandhar-144008

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Problem solving methodology

DAV Institute of Engineering & Technology, Jalandhar
Department: Electrical Engineering

CAY: 2019 – 2020

Class – B.Tech EE
Subject – Electrical Circuit Analysis (BTEE-301-18)

Semester – 3rd
Technical Quiz – 4

Electric circuit crossword
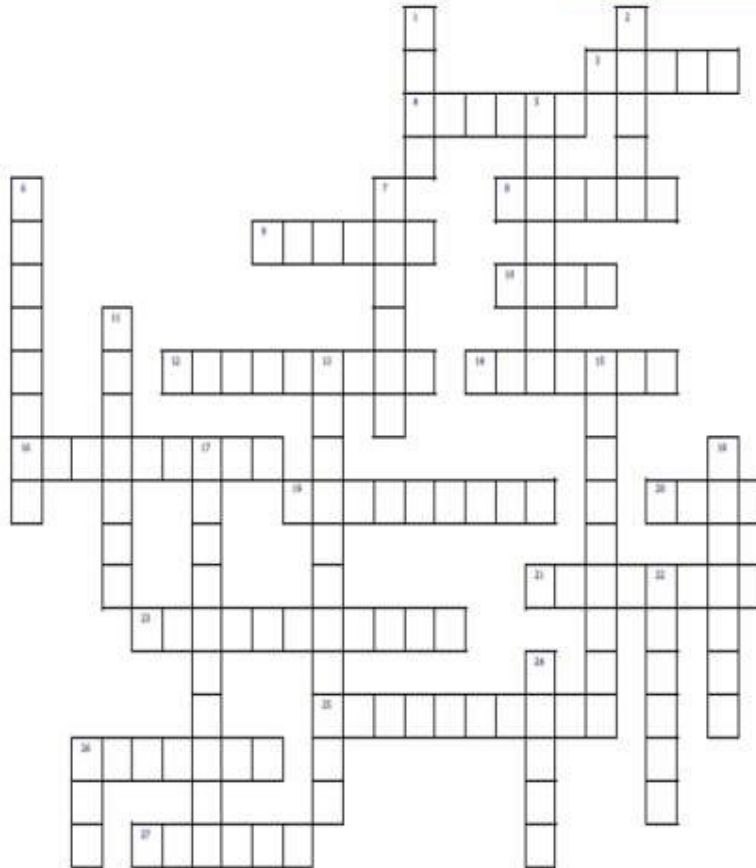
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Signature of Subject In-charge: Rahul Sharma   Signature of Module Coordinator: Sushil Prashar

DAV Institute of Engineering & Technology, Jalandhar
Department: Electrical Engineering

CAY: 2019 – 2020

Clues across

3   What causes the resistance of a LDR to decrease?

4   A closed one allows the current to flow.

8   When a circuit is ...., the current no longer flows.

9   A good conducting metal used in circuits.

10 A type of power source.

12 Adding resistors in series .... the total resistance in the circuit.

14 This component provides electrical energy.

16 What would you use to measure the potential difference?

19 Adding a resistor in parallel .... the total resistance in the circuit.

20 Resistance is measured in ....

21 The electric circuit of a car is in ....

23 Increasing this increases a wire's resistance.

25 Poor conductors of electricity.

26 Which component is used to measure current?

27 A battery supplies .... current.

Clues down

1   Protects equipment from electrical surges.

2   Which component allows the current to flow one way through it?

5   A flow of electrons.

6   The flow of charge in a circuit moves from negative to ...?

7   In which type of circuit is the current the same all the way round?

11 Another word for the potential difference of a cell.

13 Domestic supply uses an .... current.

15 An electric current is the flow of these.

17 Which component can be used as a temperature sensor?

18 The unit of current.

22 Resistance increases as the .... of the wire increases.

24 Potential difference is measured in these.

26 To find the total resistance you need to ... the different resistances together.
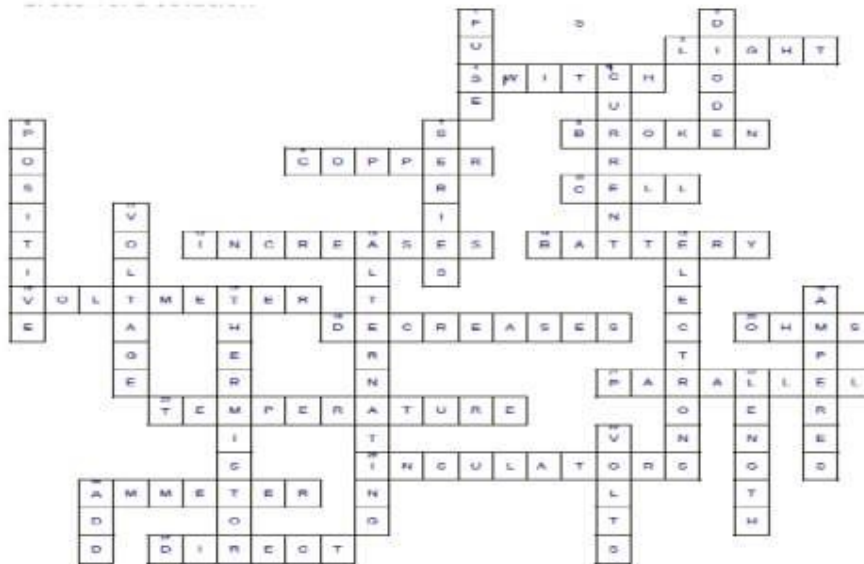
Signature of Subject In-charge: Rahul Sharma   Signature of Module Coordinator: Sushil Prashar

B. Tech. (CE) – 5th Semester
APTITUDE TEST - 1

Subject: General

Date:

Roll No.

One Mark Questions

1. The following sequence of numbers is arranged in increasing order 1,x,x,x,y,y,9,16,18 given that the mean and median are equal and are also equal to twice the mode, the value of y is

   (a) 5   (b) 6

   (c) 7   (d) 8

   [GATE-2017 SET-I]

2. If the radius of a right circular cone is increased by 50% its volume increase by

   (a) 75%   (b) 100%

   (c) 125%   (d) 237.5%

   [GATE-2017 SET-I]

3. Consider the following sentences:

   All benches are beds.

   No bed is a bulb.

   Some bulbs are lamps.

   Which of the following can be inferred?

   (i) Some beds are lamps

   (ii) Some lamps are beds.

   (a) Only (i)

   (b) Only (ii)

   (c) Both (i) and (ii)

   (d) Neither (i) nor (ii)   **[GATE-2017 SET-I]**

4. What is the value of x when

   $$81 \times \left(\frac{16}{25}\right)^{x+2} \div \left(\frac{3}{5}\right)^{2x+4} = 144 \,?$$

   (a) 1

   (b) –1

   (c) –2

   (d) Cannot be determined

   [GATE-2017 SET-II]

5. Four cards lie on a table. Each card has a number printed on the one side and a color on the other. The faces visible on the cards are 2, 3, red and blue.

   Proposition. If a card has an even value on one side then its opposite face is red.

   The cards which MUST be turned over to verify the above proposition are

   (a) 2, red   (b) 2, 3, red

   (c) 2, blue   (d) 2, red, blue

   [GATE-2017 SET-II]

6. Two dice are thrown simultaneously. The probability that the product of the numbers appearing on the top faces of the dice is a perfect square is

   (a) 1/9   (b) 2/9

   (c) 1/3   (d) 4/9

   [GATE-2017 SET-II]

7. Fact 1 : Humans are mamals,

   Fact 2 : Some humans are engineers.

   Fact 3 : Engineers build houses.

   If the above statements are facts, which of the following can be logically inferred?

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APPTITUDE TEST - 1

I.   All mammals build houses.

II. Engineers are mammals.

III. Some humans are not engineers.

(a) II only   (b) III only

(c) I, II and III   (d) I only

[GATE-2016 SET-II]

8. A square pyramid has a base perimeter x, and the slant height is half of the perimeter. What is the lateral surface area of the pyramid ?

(a) x^2 (b) $0.75x^2$

(c) $0.50x^2$ (d) $0.25x^2$

[GATE-2016 SET-II]

9. Ananth takes 6 hours and Bharath takes 4 hours to read a book. Both started reading copies of the book at the same time. After how many hours is the number of pages to be read by Ananth, twice that to be ready by Bharath? Assume Ananth and Bharath read all the pages will constant pace.

(a) 1   (b) 2

(c) 3   (d) 4

[GATE-2016 SET-II]

10. Two finance companies, P and Q, declared fixed annual rates of interest on the amounts invested with them. The rates of interest offered by these companies may differ from year to year. Year-wise annual rates of interest offered by these companies are shown by the line graph provided below.

2000 2001 2002 2003 2004 2005 2006
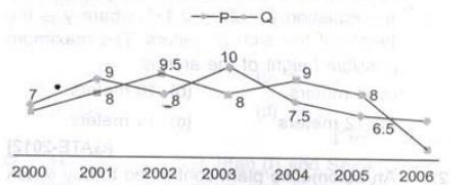
If the amounts invested n the companies, P and Q, in 2006 are in the ratio 8:9, then the amounts received after one year s interests from companies P and Q would be in the ratio :

(a) 2:3   (b) 3:4

(c) 6:7   (d) 4:3

[GATE-2016 SET-II]

11. (x% of y) + (y% of x) is equivalent to _____.

(a) 2% of xy   (b) 2% of (xy/100)

(c) xy% of 100   (d) 100% of xy

[GATE-2016 SET-II]

12. The sum of the digits of a two digit number is 12. If the new number formed by reversing the digits is greater than the original number by 54, find the original number.

(a) 39   (b) 57

(c) 66   (d) 93

[GATE-2016 SET-II]

13. If 'relftaga' means carefree, 'otaga' means careful and 'fertaga' means careless, which of the following could mean 'aftercare'?

(a) zentaga   (b) tagafer

(c) tagazen   (d) relffer

[GATE-2016 SET-I]

14. A cube is built using 64 cubic blocks of side one unit. After it is built, one cubic block is removed from every corner of the cube. The resulting surface area of the body (in square units) after the removal is_____.

(A) 56   (B) 64

(C) 72   (D) 96

[GATE-2016 SET-I]

15. Mr. Vivek walks 6 m N-E, then turns and walk 6 S-E, both at 60° to East. He further moves 2m South and 4 m West. What is the straight distance in meter between the point he started from and the point he finally reached ?

(a) $2\sqrt{2}$ (b) 2

(c) $\sqrt{2}$ (d) $1/\sqrt{2}$

[GATE-2015 SET-II]

16. Four cards are randomly selected from a pack of 52 cards. If the first 2 cards are kings, what is the probability that 3rd card is king?

(a) $\frac{4}{52}$ (b) $\frac{2}{50}$

(c) $\left(\frac{1}{52}\right)\times\left(\frac{1}{52}\right)$ (d) $\left(\frac{1}{52}\right)\times\left(\frac{1}{51}\right)\left(\frac{1}{50}\right)$
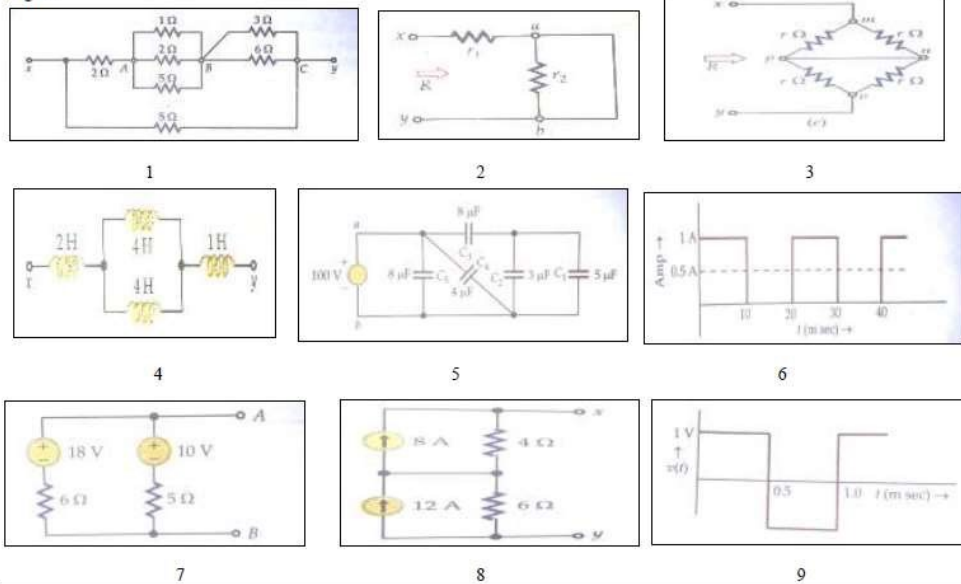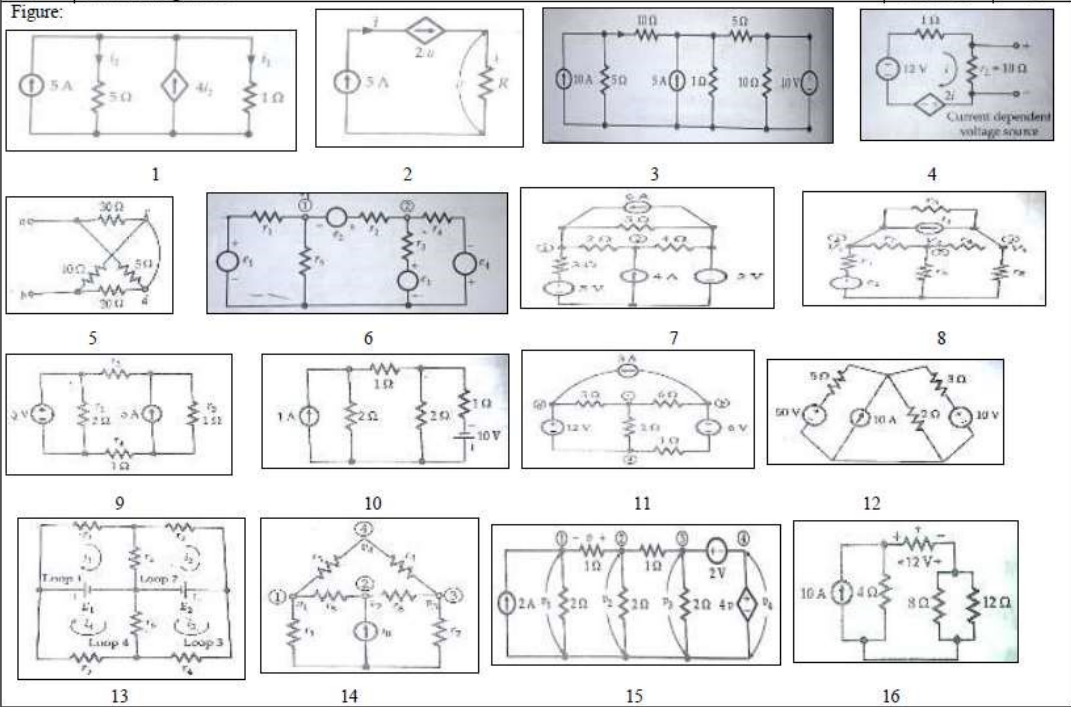
[GATE-2015 SET-II]

DAV Institute of Engineering & Technology, Jalandhar
Department: Electrical Engineering

CAY: 2020 – 2021

Tutorial

Class – B.Tech ECA
Subject – Electrical Circuit Analysis (BTEE-301-18)
Level of difficulty - 1
Date of Issue: 12-08-20

Semester – 3rd
Tutorial No. – 1

Date of Submission: 19-08-20

Tutorial

Quest. No.	Question	CO's RBT Level	Marks
1	a) Find the equivalent resistance across x-y of the circuit in figure 1 b) Find R across terminal x-y in figure 2 c) Determine equivalent resistance R across x-y in figure 3	CO1, L1	1
2	Find the equivalent inductances in figure 4	CO1, L1	1
3	Determine Equivalent capacitance across terminal (a-b) (in figure 5). Also find the charging time to charge theses capacitances by a steady direct current of constant magnitude of 10A.	CO1, L2	1
4	In the circuit, the current wave is represented as $I = 5 \sin (314t – \Pi / 4)$. Find the i) r.m.s value of current, ii) average value of current iii) phase angle of current	CO1, L2	1
5	A non-alternating periodic waveform has been shown in figure 6. Find its form factor.	CO1, L3	1
6	Two 100 W, 220V bulbs are required to be connected across a 400 volts supply. Find the value of the resistance to be inserted in the line so that the voltage across the bulbs does not exceed 220V.	CO1, L2	1
7	A voltage of $v = 10 \sin 314\,t$ is applied to an inductance of 5mH. Determine I, instantaneous power p, and Average power P.	CO1, L2	1
8	a) Obtain single current source in figure 7. b) Obtain single voltage source in figure 8.	CO1, L3	2
9	A square voltage wave is applied across a 1mH inductor. What is the type of current? What is the peak current?	CO1, L2	1

Max marks: 10

Figure:

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Subject In-charge: Rahul Sharma   Module Coordinator: Sushil Prashar

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DAV Institute of Engineering & Technology, Jalandhar
Department: Electrical Engineering

CAY: 2020 – 2021

Tutorial

Class – B.Tech ECA
Subject – Electrical Circuit Analysis (BTEE-301-18)
Date of Issue: 19-08-20   Level of difficulty - 2

Semester – 3rd
Tutorial No. – 2
Date of Submission: 26-08-20

Tutorial			
Quest. No.	Question	CO's RBT Level	Marks
1	Find current i(1) and i(2) in figure 1	CO1, L3	1
2	Find the value of R in the circuit in figure 2	CO1, L3	1
3	Obtain current i(1) using KVL in figure 3	CO1, L3	1
4	Obtain the voltage output across r (L)	CO1, L3	1
5	Find the voltage needed across a-b terminal so that the drop across the 10 ohm resistor is 30 V. in figure 5	CO1, L3	1
6	i, ii, iii) Develop nodal equation for figure 6,7,8 iv) Find current through the resistor r (2) by nodal method in figure 9 v) Using mesh analysis, obtain the current through the 10V battery. in figure 10	CO1, L4	2
7	i) Using Mesh analysis develop node voltage and current in figure 11 ii) Using mesh analysis find the current through the 50 V source in figure 12 iii) Write down the mesh equation for figure 13	CO1, L4	1
8	i) , ii) Form the nodal equations for figure 14 & 15	CO1, L4	1
9	Find r in figure 16	CO1, L4	1

Max marks: 10

Figure:

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DAV Institute of Engineering & Technology, Jalandhar
Department: Electrical Engineering

CAY: 2020 – 2021

Tutorial

Class – B.Tech ECA
Subject – Electrical Circuit Analysis (BTEE-301-18)
Level of difficulty - 3
Date of Issue: 26-08-20

Semester – 3rd
Tutorial No. – 3

Date of Submission: 02-09-20

Tutorial

Max marks: 10

Quest. No.	Question	CO's RBT Level	Marks
1	Find the current in the 10 ohm resistor in the circuit using thevenin's theorem. What is the power loss in that resistor? Figure 1	CO1, L4	1
2	Find the power loss in the 10 ohm resistor in figure 2 using thevenin's theorem	CO1, L4	1
3	Utilizing Thevenin's theorem find the current in 5 ohm resistance in figure 3	CO1, L4	1
4	Find norton's equivalent circuit at the left of terminal a-b for the figure 4	CO1, L4	1
5	Find norton's equivalent across x-y for the figure 5	CO1, L4	1
6	Using Norton theorem, what is the current in the 5ohm resistor across a-b terminal in figure 6	CO1, L4	1
7	Using Norton theorem, find the current through the 2ohm resistor in figure 7. Verify your result by thevenin;s theorem.	CO1, L4	1
8	Find i in the circuit using superposition theorem in figure 8	CO1, L4	1
9	Find the loss in 5 ohm resistor by superposition theorem in figure 9	CO1, L4	1
10	What is amount of maximum power transfer to R in figure 10	CO1, L4	1
Extra	Find the current in the 6 ohm resistor using thevenin;s theorem in figure 11. Verify using Norton's theorem.		

Figure:
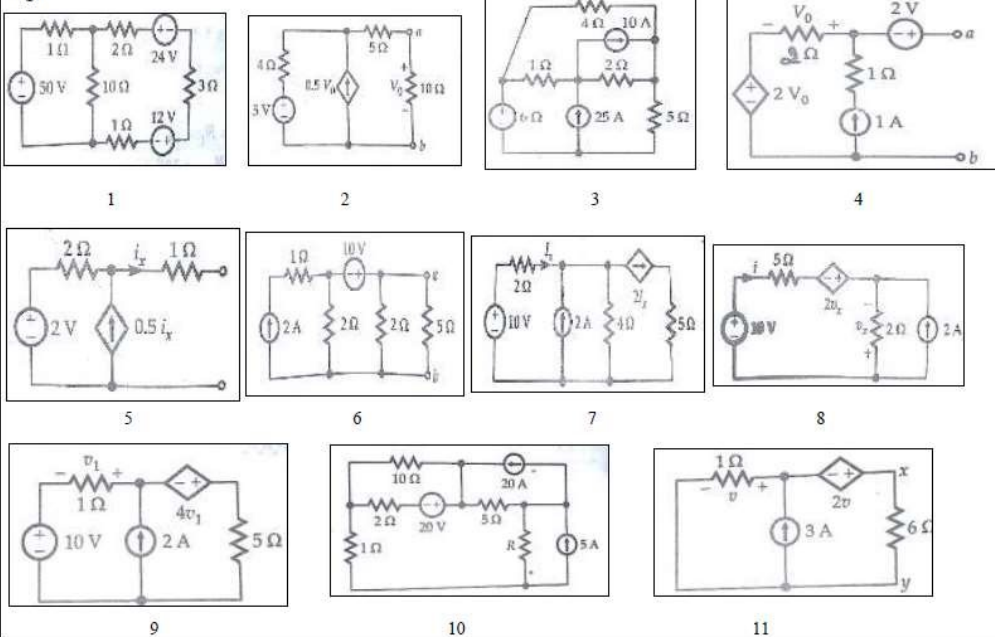
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Subject In-charge: Rahul Sharma   Module Coordinator: Sushil Prashar

DAV Institute of Engineering & Technology, Jalandhar
Department: Electrical Engineering

CAY: 2020 – 2021

Tutorial

Class – B.Tech ECA
Subject – Electrical Circuit Analysis (BTEE-301-18)
Level of difficulty - 2
Date of Issue: 16-09-20

Semester – 3rd
Tutorial No. – 4

Date of Submission: 02-10-20

Tutorial			**Max marks: 10**
Quest. No.	Question	CO's RBT Level	Marks
1	In a simple T section, a low pass filter has design impedance Ro. Find Zoπ at 0.9 fc.	CO4, L3	0.5
2	Design a constant k-low pass filter having fc= 2.5 kHz and Ro = 700 ohm. Also find the frequency at which this filter produces attenuation of 19.1 db. Find its characteristics impedance and phase constant at pass band and stop or attenuation band.	CO4, L4	0.5
3	Design a T and π section constant – K high pass filter having cut off frequency of 12 kHz and Ro= 500 ohm. Also find its characteristics impedance and phase constant at 24 kHz. And attenuation at 4 kHz.	CO4, L4	0.5
4	Design a T section constant k-high pass filter having cut off frequency of 10 kHz and Ro= 600 ohm. Find its characteristics impedance and phase constant at 25 kHz.	CO4, L4	0.5
5	Design a low pass filter having cut off frequency at 796 Hz when terminated in a 600 ohm resistance, in both T and π configurations.	CO4, L4	0.5
6	Design a constant k high pass filter T and π section having fc= 5 kHz and Ro = 600 ohm.	CO4, L3	0.5
7	Design a prototype band pass filter (T and π) having fc= 3 kHz and 6 kHz and Ro = 600 ohm. Also find the resonant frequency of shunt arm or series arm.	CO4, L4	0.5
8	Design a prototype band stop filter (T) having fc= 2 kHz and 5 kHz and Ro = 600 ohm.	CO4, L4	0.5
9	Design a prototype band pass filter to match with a load of Ro = 600 ohm and to allow frequency between 3 kHz and 6 kHz.	CO4, L4	0.5
10	Design a m-derived low pass filter (T & π section having fc= 1.5 kHz and Ro = 500 ohm and infinite attenuation frequency = 2 kHz.	CO4, L4	0.5
11	Design a m-derived High pass filter (T & π) section having fc= 4 kHz and Ro = 600 ohm and infinite attenuation frequency = 3.6 kHz.	CO4, L4	0.5
12	Design a m-derived low pass filter (T & π) section to match a line having characteristics impedance of 500 ohm and to pass signal upto 1 kHz with infinite attenuation occurring at 1.2 kHz.	CO4, L4	0.5
13	Design a m-derived low pass filter T section having fc= 7 kHz and Ro = 600 ohm and infinite attenuation frequency = 10.5 kHz.	CO4, L4	0.5
14	Design a m-derived High pass filter having fc= 5 kHz and Ro = 600 ohm and m= 0.35. Also determine the frequency of infinite attenuation.	CO4, L4	0.5
15	Design a half section of a composite HPF section consisting of a prototype HPF with L = 40 mH, C = 0.1 μF. The load is 600 ohm and cut off frequency is 1 kHz. Take m = 0.6.	CO4, L4	0.5
16	A prototype High Pass Section with L = 4.77 mH and C = 0.01326 μF has a cut off frequency of 10 kHz and design impedance of 600 ohm. Design a suitable terminating half section with m = 0.6 such as to operate with cut off frequency.	CO4, L4	0.5
17	Design a composite low pass filter to operate with a design impedance 500 ohms, m=0.2 and cut off frequency = 2 kHz.	CO4, L4	1
18	Design a complete composite HPF having m-derived section m=0.4 and prototype HPF with L = 40 mH and C=0.1μF.	CO4, L4	1

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Subject In-charge: Rahul Sharma   Module Coordinator: Sushil Prashar

DAV Institute of Engineering & Technology, Jalandhar
Department: Electrical Engineering

Tutorial

Class – B.Tech ECA
Subject – Electrical Circuit Analysis (BTEE-301-18)
Level of difficulty - 3
Date of Issue: 03-10-20

Semester – 3rd
Tutorial No. – 5

Date of Submission: 28-10-20

Tutorial   Max marks: 10

Quest. No.	Question	CO's RBT Level	Marks
1	Find the Laplace transform of i. $f(t) = 1 - e - 2t$ ii. $x(t) = u(t) - u(t - \theta)$ iii. $t \sin 2t$	CO4, L3	0.5
2	A function is given as $z(s) = 3(s + 1) / s (s + 2) (s + 3)$. Find final value of z(t) by final value theorem.	CO4, L4	0.5
3	Find the final value of the current in a RL circuit following step response using final value theorem.	CO4, L4	0.5
4	In RC series circuit, for a step input voltage, determine the initial current at $t = 0+$ following switching on at $t = 0$ using the initial value theorem. Assume the initial charge to be $+ Qo$ in the capacitor.	CO4, L4	0.5
5	Assume the initial current to be 2A through the inductor, find Vo(t) . What will be Vo(t) if the supply is $10e - t$ u(t)?	CO4, L4	0.5
6	A 10 volts step voltage is applied across a RC series circuit at $t = o$. Find i(t) at $t = 0+$ and obtain the value of $di / dt \mid t = 0+$ Assume R = 100 ohm, C = 100 μF.	CO4, L3	0.5
7	$S8 + S7 + S6 - 2S5 + 4S3 - S2 + S + 1$ is Hurwitz or not.	CO4, L4	0.5
8	i) $S4 + S3 + 2S2 + 3S + 2$ is Hurwitz or not. ii) $S4 + S3 + 6S2 + 3S + 6$ is Hurwitz or not. iii) $S3 + 6S2 + 11S + 6$ is Hurwitz or not.	CO4, L4	0.5
9	Test whether the polynomial $S5 + S3 + S$ is Hurwitz or not.	CO4, L4	0.5
10	Test whether the polynomial $S4 + 3S2 + 2$ is Hurwitz or not.	CO4, L4	0.5
11	Find the range of values of m in P(s) so that P(s) is Hurwitz. $P(s) = 2S4 + S3 + mS2 + S + 2$	CO4, L4	0.5
12	Test the following polynomial for its Hurwitz □ $S8+3S7+10S6+24S5+35S4+57S3+50S2+36S+24$	CO4, L4	0.5
13	Realize FOSTER and CAUER $Z(s) = (S2+1)(S2+8) / S (S2+4)$	CO4, L4	0.5
14	Synthesize Z(s) in CAUER-II form $Z(s) = 8S3 + 10S / S4 + 6S2 + 5$	CO4, L4	0.5
15	Synthesize Z(s) in CAUER-II form $Z(s) = S5 + 5S3 + 4S / S4 + 3S2 + 1$	CO4, L4	0.5
16	Synthesize Z(s) in foster – I and II form $Z(s) = 8 (S2+4)(S2+25) / S (S2+16)$	CO4, L4	0.5
17	$Z(s) = (S+4)(S+6) / (S+3)(S+5)$ Find CAUER- I and II form of Z(s) if possible	CO4, L4	0.5
18	Realize RC driving point impedance FOSTER-I and CAUER-II $Z(s)= S2 + 4S+ 3 / S2+2S$	CO4, L4	0.5
19	$Z(s) = 8 (S2+1)(S2+3) / S (S2+2) (S2+4)$ realize network Foster-I and Cauer-II	CO4, L4	0.5
20	RL representation of Foster-I form $Z(s) = 2 (S+1)(S+3) / (S+2)(S+4)$	CO4, L4	0.5

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Subject In-charge: Rahul Sharma   Module Coordinator: Sushil Prashar

DAV Institute of Engineering & Technology, Jalandhar
Department: Applied Sciences

Class/ Semester: ECE/1st   Subject with Code: Semiconductor & Optoelectronics Physics
(BTPH105-18)

Tutorial No. 1

Date of Issue: 18.11.2021   Due date of Submission:25.11.2021   **Max marks: 10**

Quest No.	Question	CO's RBT Level
1	Calculate the probability that the energy level E=3KT above fermi energy is occupied by an electron at 300K.	CO1, L2, L5
2	Determine the temperature at which there is a one percent probability that an energy state having energy equal to 5.95 eV is empty. Assume that the fermi energy level for the material is 6.25 eV and electron in this material follows fermi dirac distribution.	CO1, L2, L5
3	Calculate the probability that a state in a conduction band is occupied by an electron and also calculate the thermal equilibrium electron concentration is silicon at 300K. Assume the fermi energy is 0.25 eV below the conduction band.	CO1, L2, L5
4	Calculate the thermal equilibrium hole concentration in silicon at 400 K. Assume that fermi energy is 0.27eV above the valence band energy. The value of N for silicon at 300K is 1.04×10^{19} cm^{-3}.	CO1, L2, L5
5	Calculate intrinsic carrier concentration in GaAs at 300K and at 450K. Given, $N_c = 4.7 \times 10^{17}$ cm^{-3}, $N_v = 7.0 \times 10^{18}$ cm^{-3} at 300K. Assume that band gap energy of GaAs is 1.42eV and does not vary with temperature over this range.	CO1, L3, L5
6	Calculate thermal equilibrium temperature of electron and holes for a given fermi energy. Consider Si at T=300K so that $N_c = 2.8 \times 10^{19}$ cm^{-3} and $N_v = 1.04 \times 10^{19}$ cm^{-3}. Assume that fermi energy is 0.25 eV below conduction band. Given that if band gap energy of Si is 1.12 eV, then fermi energy will 0.087 eV above valence band.	CO1, L3, L5
7	Two semiconductor materials have exactly the same properties except the material A has bandgap energy of 1eV and material B has a bandgap energy of 1.2eV. Determine the ratio of Ni of material A to that of material B for T=300K.	CO1, L4
8	A *pn* junction employs the following doping levels: $N_a = 10^{16}$ cm^{-3} and $N_d = 5 \times 10^{15}$ cm^{-3} Determine the hole and electron concentrations on the two sides if $n_i= 1.08 \times 10^{10}$ cm^{-3} .	CO1, L3, L5
9	Why does a pure semiconductor behave like an insulator at absolute zero temperature?	CO1, L2
10	What is the forbidden energy gap? How does it occur? What is its magnitude for Ge and Si?	CO1, L1

Class/ Semester: ECE/1st   Subject with Code: Semiconductor & Optoelectronics Physics   (BTPH105-18)

Tutorial No. 2

Date of Issue: 25.11.2021   Due date of Submission:2.12.2021   **Max marks: 10**

Quest No.	Question	CO's RBT Level
1	For silicon at 300K ,the electron mobility and hole mobility are 0.135 $m^2V^{-1}s^{-1}$ and 0.048 $m^2V^{-1}s^{-1}$. If the intrinsic carrier concentration is $1.49 *10^{16} m^{-3}$,find conductivity of silicon.	CO1, L2, L5
2	A semiconductor has electron density $0.45*10^{12}$ per m^{-3} and hole density $5*10^{20}$ per m^3 .Find its conductivity . Given $\mu_h=0.048$ and $\mu_e =0.135$.	CO1, L2, L5
3	Find the probability of occupancy of electrons in conduction band if the energy of electrons is E_f +0.026 eV where E_f is the Fermi energy.	CO1, L2, L5
4	Calculate the position of Fermi level above the top of valence band for an intrinsic semiconductor at 300K. The energy gap of semiconductor is 1.1eV and the ratio of effective mass of holes and electrons is 6.	CO1, L2, L5
5	Calculate the intrinsic carrier concentration and conductivity of pure germanium at 300K as: $M_e{}^*=m_h{}^*=9.1*10^{-31}$ kg $e_g=0.72eV$ $\mu_e=0.38$ $\mu_h=0.18$	CO1, L3, L5
6	Pure silicon at a temperature of 300K has equal electron and hole density of $1.5*10^{16}$ .When it is doped with indium , the hole density increases to $4.5*10^{22}$. Calculate the number density of electrons in doped silicon.	CO1, L3, L5
7	A p-type semiconductor is obtain by doping indium impurity in germanium lattice in the ratio one atom of indium to $4*10^8$ atoms of germanium . At 300K , $n_i =2.5*10^{19}$. If the density of germanium atoms is $4.4*10^{28}$, find the density of acceptor atoms , density of holed and electorns.	CO1, L5
8	The wavelength of light emitted by a light emitted diode is 600nm . Find its energy gap.	CO1, L5
9	An ideal diode has a reverse saturation current of 25μA at a temperature of 127^0c. Find the static and dynamic resistance of the jumction of this temperature for a forward bias voltage of 0.2V.	CO1, L3, L5
10	A flat copper strip of width 1.5cm and thickness 0.5cm carries a current of 100A. A magnetic field of 1T is applied perpendicular to the strip. The hall voltage produced is 10μV. Calculate the number density of charge carriers.	CO1, L3, L5
11	A zener diode has a breakdown voltage of 10V and maximum power dissipation of 0.4W. What is the maximum current that the diode can handle.	CO1, L2, L5

DECLARATION

We hereby certify that the work which is being presented in the report entitled "**UTILIZATION OF IRON SLAG AS A PARTIAL REPLACEMENT OF COARSE AGGREGATES IN CONCRETE**" by Gurdeep Singh, Divanshu, Aamir Usmani, Sanjesh Chhabra, Monu Kumar, Mohit Pandey, Akashdeep Singh in partial fulfillment of requirements for the award of degree of B.Tech. (Civil) submitted to DAV Institute of Engineering & Technology, Jalandhar, Department of Civil Engineering is an authentic record of our own work carried out under the supervision of Dr Sanjay Goel (A.P Dept.of Civil Engg. DAVIET)

Signature of students: Aamir Usmani (1604246) Akashdeep Singh(1604249) Divanshu (1604267)

Gurdeep Singh (1604269) Mohit Pandey (1604276) Monu Kumar (1604277)Sanjesh Chhabra (1604290)

This is to certify that the above statement made by the candidate is correct to the best of my/our knowledge.

Signature of Project Incharge 29/06/2020

Signature of H.O.D.

4

57
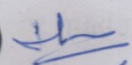
DECLARATION

We hereby declare that the project work entitled as **ESTIMATING, COSTING AND TENDERING OF G+3 BUILDING AT DAVIET CAMPUS (Proposed Administration Block)** Major Project Report being submitted to **"I.K. GUJRAL PUNJAB TECHNICAL UNIVERSITY"** is an authentic record of our own work carried out at **"DAV Institute Of Engineering and Technology, Jalandhar"** during July2020 to December 2020 for award of degree of B-TECH Civil department under the guidance of **"Dr.Sanjay Goel"** during 7th Semester. The work presented in this project report has been submitted for the award of any other degree of this institute or any other university.
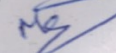
Dated: 25 Jan 2021

Signature:

Akshay Kumar (1704380) *Akshay Kumar*

Kapil Kohli (1803989) *Kapil Kohli*

Harmanpreet Singh (1704393)
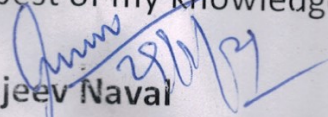
Mansimran Singh (1704406)
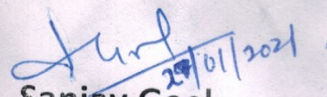
Amritpal Singh (1803982) *Amritpal Singh*

Hitesh Kumar Marwaha (1803988) *Hitesh Kumar Marwaha*

Manoj Kumar (1803993) *MANOJ KUMAR*

This is certified that above statement made by the candidates is correct to the best of my knowledge.
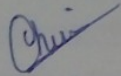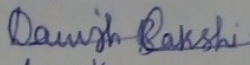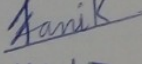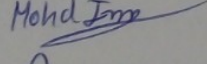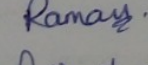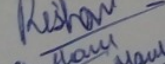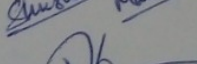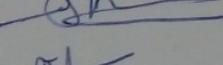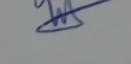
Dr. Sanjeev Naval *28/01/21*

(Head. of Civil Engg.Dept. At D.A.V.I.E.T., Jalandhar)

Dr. Sanjay Goel *29/01/2021*

(supervising guide)

(Assistant professor in Civil Engg. Dept.At D.A.V.I.E.T., Jalandhar)
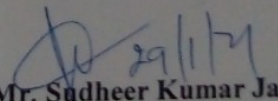
DECLARATION

I hereby declare that the project work, which is being carried out titled "**LOAD CARRYING CAPACITY OF GEOGRID REINFORCED GRANULAR MATERIAL OVER SOFT SOILS: NUMERICAL INVESTIGATION**" in partial fulfillment of the requirement for the award of degree in Bachelor of Technology submitted to the department of Civil Engineering, DAV INSTITUTE OF ENGINEERING AND TECHNOLOGY, JALANDHAR is authentic record of our own project work carried out under the supervision and guidance of **Mr. Sudheer Kumar Jala (Asst. Professor Civil Deptt.).** The work presented in this report has not been submitted for the award of any other degree of this institute or any other university.

Signature of Students

Chirag Bhandari	(1704387)	
Danish Bakshi	(1704388)	
Kanik	(1704400)	
Mohd Imran	(1704407)	
Ramandeep	(1704417)	
Rishav Jandial	(1704420)	
Shubham Manhas	(1704430)	
Sunil Kumar Meena	(1704432)	
Tushar Handa	(1704433)	

This is to certify that the above statement made by the candidates is correct to the best of my knowledge.

Mr. Sudheer Kumar Jala

(Project Incharge)

Asst. Professor

Dept. of Civil Engineering

DAVIET, JALANDHAR

REINFORCE THE SOFT SOILS WITH GEOGRID AND ENCASED STONE COLUMNS: NUMERICAL INVESTIGATION

Major Project Report

Submitted in Partial Fulfilment of the Requirement for

the award of Degree of Bachelor of Technology

(2017-2021)

Submitted By:

Antriksh Chander (1803983), Asim Amin (1803984), Dikshant (1803986) Karan (1803990),

Karanveer Dhawan (1803991), Madhav Pahwa (1803992) Prince (1803995), Raghav Pahwa

(1803996), Rahul Bhagat (1803997)

Under the Guidance of

Er. Sudheer Kumar Jala (Assistant Professor)

Department of Civil Engineering

D.A.V. Institute of Engineering and Technology,

Kabir Nagar, Jalandhar

Organized a poster making/slogan writing competition on **8th March, 2018** under the CSR initiative taken in **adavitya_2k18** here students presented their slogans on posters made by themselves and depicted the theme of <mark>"Swachh Bharat".</mark>

Poster making competition

ROLE PLAY COMPETITION ORGANISED <u>ON OCT 11, 2019</u>

Ishaan Vassal grabbed the title for the best role played as "Alternating Current" followed by Smyle Verma, stood second, who played the role of "He-Ne Laser". Third position was shared by two participants Harshik Kothari and Priyanka who acted the role as "Direct Current" and "Ruby Laser" respectively.

PAPER PRESENTATION COMPETITION ORGANISED <u>ON OCT 4, 2019</u>

Paper Presentation Competition: A SYMPOSIUM ON SCIENCE IN REAL WORLD was organised for B. Tech. first year students by Student Consortium (S)³A: (Students Society for Scientific Advancements) n the topics:

1. Role of Basic Sciences in real world.
2. Mathematics in real world.
3. Environment Issues & Sustainable Technological Development.
4. Ethics and Values- Need and Concern.

Himanshu from B. Tech.-ECE first year grabbed the title for the best presentation on the topic "Role of basic Sciences in real world" followed by Ishaan Vassal & Harshik Kothari from B. Tech.-EE as second best presentation for on the topic "Role of Science in everyday life". Sandeep Raj from B. Tech.-EE also grabbed second position for his presentation on the topic "Plastic pollution Effects and solutions" followed by Ashish Sharma as third position holder for his presentation on the topic "Maths in real world".

A DEBATE COMPETITION ORGANISED <u>ON OCT 3, 2019</u>

on the different topics:

1. Foreign Education Is Better Than Indian Education.
2. Mobile Phones Are Beneficial For Students.
3. Celebration of Some Festivals Enhance Environmental Pollution.
4. Spirituality is Living in Another World.
5. Online Lectures are Better than Teacher's Interactive Lectures.

Namit Sachdeva (in favour) and Minal (against the motion) of ECE first year were declared as Best Speakers for the debate competition, followed by Navdeep Singh (ECE) & Mansimrat Kaur (CSE) on the same topic as first runners up and Himanshu-Spirituality is living in another world (favour) Parmanand-Foreign education is better than Indian education as the second runners up.

SCIENCE EXPO ORGANISED ON THE THEME: "Innovating Science and Technology in the service of Society" **ON 7th Feb, 2019**

Various project models prepared and displayed during competition

Expert lecture organized by the Department of Applied Sciences on 16 March, 2021

An expert talk by Prof. Neeraj Dilbaghi, Professor of Nanobiotechnology, Guru Jambeshwar University of Science and Technology, Hisar was organized on the topic " Science, Technology and Innovatiion for Sustainable Development during and Post Covid" on **19th FEBRUARY, 2021**
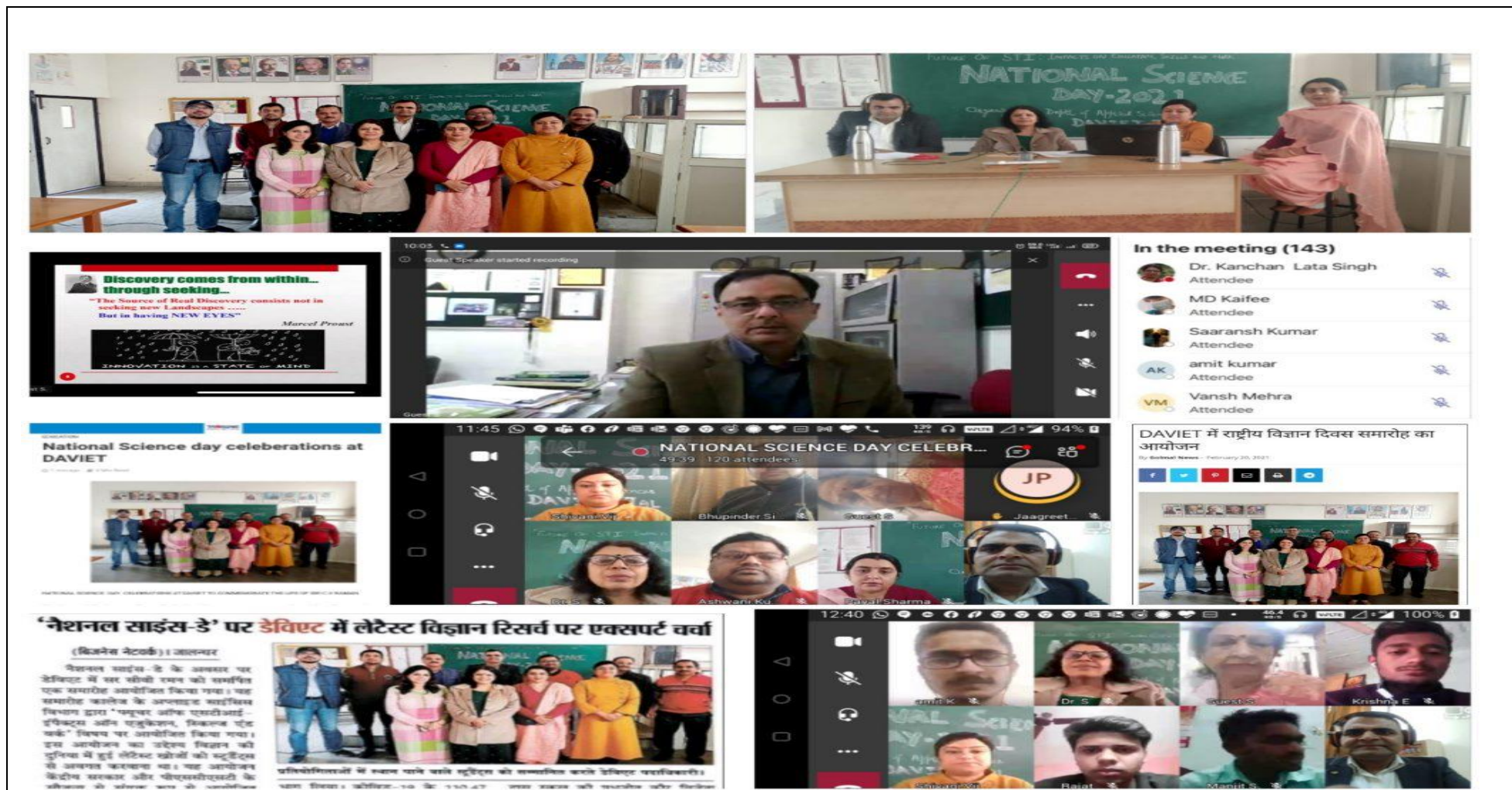
Dainik Bhaskar

डेविएट के प्रांशु को मिला बेस्ट स्टूडेंट का अवॉर्ड

जालंधर। इंडियन सोसायटी फोर टेक्निकल एजुकेशन की ओर से गुरु नानक देव इंजीनियरिंग कॉलेज लुधियाना में स्टूडेंट कन्वेंशन करवाई गई। पंजाब, जम्मू एंड कश्मीर, हरियाणा, हिमाचल प्रदेश रीजन के स्टूडेंट्स इसमें शामिल हुए। डेविएट के प्रांशु नागपाल को बेस्ट स्टूडेंट अवॉर्ड दिया गया। उसने एमरजिंग ट्रेंड्स इन इंजीनियरिंग पर प्रेजेंटेशन दी। प्रिं. डॉ. मनोज कुमार, डीन एकेडेमिक्स डॉ. सुधीर शर्मा, डिप्टी डीन एकेडेमिक्स रमनदीप सिंह जौहल ने उसे सम्मानित किया।

24-10-2019

Mr. Pranshu Nagpal, awarded as best student from ISTE, 2019

Dainik Jagran

25-10-2019

यूथ फेस्टिवल के दूसरे दिन डेविएट की टीम ने 14 इवेंट में से 11 में प्रथम स्थान पाया

DAVIET students got 14 first prizes in IKG PTU cultural fest - 2019

68

पंजाबी फोक डांस, माइम, ग्रुप सॉन्ग, स्किट में डेविएट प्रथम

Dainik Jagran
24~10~2019

DAVIET students participated in IKG PTU cultural fest

Elite

NPTEL Online Certification

(Funded by the Ministry of HRD, Govt. of India)

This certificate is awarded to

LOVISH KUMAR KAMRA

for successfully completing the course

Digital Circuits

with a consolidated score of **63** %

Online Assignments	22.06/25	Proctored Exam	40.5/75

Total number of candidates certified in this course: **2864**

A. Goswami

Jul-Oct 2019

(12 week course)

Prof. Adrijit Goswami
Dean, Continuing Education & NPTEL Coordinator
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

To validate and
70

One student Prabhjot Kaur from ECE first year grabbed third position in power point presentation competition through her presentation on the topic "Physics in Space" on 13th Oct, 2020 at HMV, Jalandhar under the guidance of Dr. Shivani Vij, Assistant Professor

NATIONAL VOTERS' DAY- 2020

OFFICE OF DEPUTY COMMISSIONER-CUM-DISTRICT ELECTION OFFICER, JALANDHAR
In collaboration with
HANS RAJ MAHILA MAHA VIDYALAYA JALANDHAR

JANUARY 25, 2020

Appreciation Certificate

This is to certify that Mr./Mrs./Ms. _Kirti Narang_ participated in Declamation Contest/ Essay Writting/ Slogan Writting/ Poster Making/ Rangoli/ Nukkad Natak Competition held on _18 Jan, 2020_ Distinction _2nd_

Varinder Kumar Sharma, IAS
Deputy Commissioner-cum-
District Election Officer.
Jalandhar

Kulwant Singh, IAS
Addl. Deputy Commisioner (Dev.)-cum-
Addl. District Election Officer.
Jalandhar

Manjit Singh
Tehsildar (Elections)
Jalandhar

Prof. Dr. (Mrs.) Ajay Sareen
Principal, Hans Raj Mahila Maha Vidyalaya
Jalandhar

DAVIET students honoured by Deputy commissioner of Jalandhar for declamation contest - 2020

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A Study of Consumer's Attitude towards Mobile Marketing

Suman Tandon[1], Deepti Kakkar[2], Parveen Kakkar[3], Randeep Kaur[4]

Associate Professor(MBA), DAVIET Jalandhar, standon7708@gmail.com[1]
Assistant Professor (ECE), NIT Jalandhar,kakkard@nitj.ac.in[2]
Assistant Professor (CSE), DAVIET Jalandhar,parveenk@davietjal.org[3]
Student (MBA), DAVIET Jalandhar,[4]

Abstract:

The tremendous growth of smart phones has opened door of opportunities for marketers to market their product and services easily through mobile phones. Consumers are attracted towards the mobile marketing as enhancement of usage of smart phones. They are more conscious about knowing all the trends and technology and accepting them in their daily lives. This is due to the reason that they get to know about each product and services on their phones via SMSs, emails, various apps, etc. This paper shows a study employs to analyse the relationship between demographic factors on the mobile marketing. For the study, authors collected the data using a structured questionnaire. The study involved 102 respondents of various age group, gender and different qualification in order to have a unbiased evaluation. The study aims to evaluate the mobile marketing impact based on the determined factors analysis. During this study, it is observed consumers have positive attitude towards mobile marketing but companies should focus on improving strategies.

*Keywords: Mobile Marketing, Smart Phones, Technology.*

1. Introduction

In today's world, technology influences our culture more than ever. Marketers have noticed for this trend and have move on to more techniques. Focusing a message on the individual customer is replacing the more impersonal, mass messaging techniques. They are playing a vital role in our lives. Today, maximum people are using mobile phones or can say android mobile phones. Mobile marketing begins with the mobile internet service. Mobile marketing is a way of marketing through wireless networks. It refers to the process of marketing when done through mobile phones. As defined by Andreas, Mobile Marketing is "any marketing activity conducted through an established network to which consumers are constantly connected using a personal mobile device."Mobile marketing is a marketing approach that sees brands and businesses using a variety of techniques to promote their business, brand, product or service directly to mobile users. We have also shifted from using mobile phones with a limited set of features, to using smart phones that themselves are capable of more with each update, now also complemented by the addition of tablet devices, and smart watches.

But as the technology has developed, and the reach and use of mobile phones has grown. The figure 1 shows the graphical

Paper Presentation by student in International Conference

VEDIC BHASHAN PRATIYOGITA ORGANISED AT DAVIET (SPEECH COMPETITION) on 20 Aug, 2020
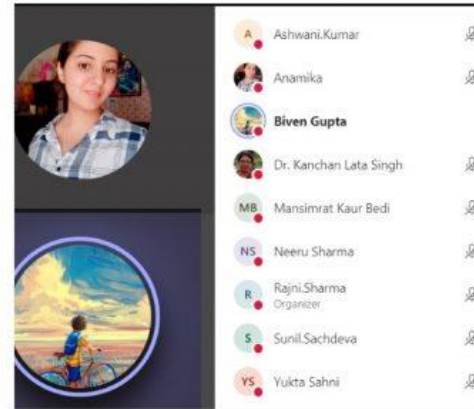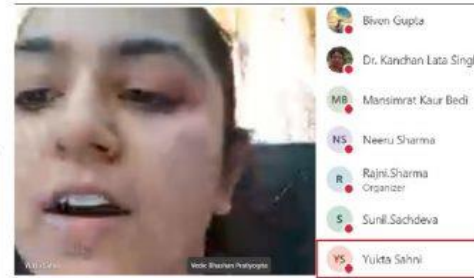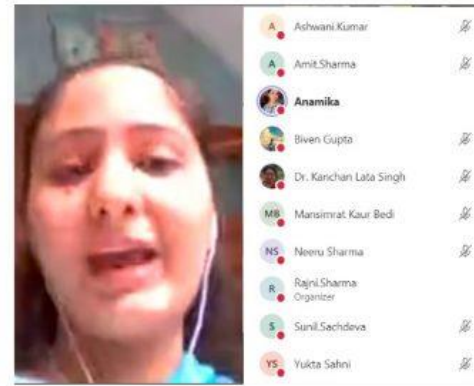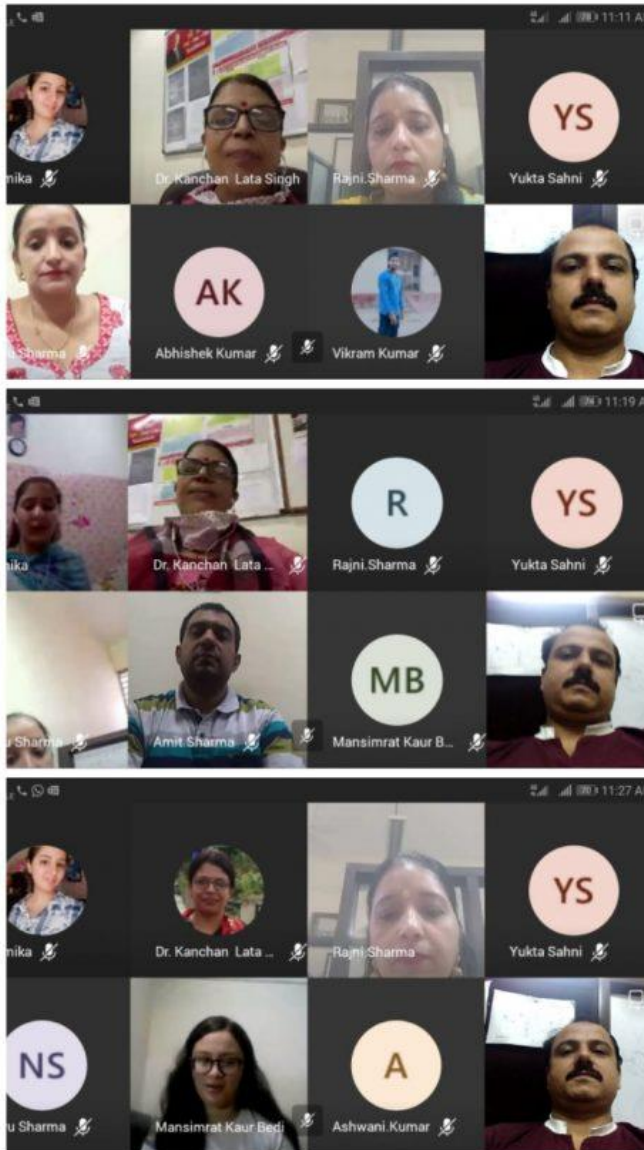
ਡੇਵਿਅਟ ਕਾਲਜ ਵਿਖੇ ਵਿੱਤੀ ਸਾਖਰਤਾ 'ਤੇ ਵੈਬੀਨਾਰ ਦਾ ਆਯੋਜਨ

ਜਲੰਧਰ ● ਰਮੇਸ਼ ਭਗਤ

ਡੇਵਿਅਟ ਕਾਲਜ ਦੇ ਵਪਾਰ ਪ੍ਰਬੰਧਨ ਵਿਭਾਗ ਨੇ 20 ਮਈ, 2021 ਨੂੰ ਐਮਬੀਏ, ਬੀਬੀਏ ਅਤੇ ਬੀ.ਕਾਮ

(ਆਨਰਜ) ਦੇ ਵਿਦਿਆਰਥੀਆਂ ਲਈ ਪ੍ਰਿੰਸੀਪਲ ਡਾ ਮਨੋਜ ਕੁਮਾਰ ਦੀ ਅਗਵਾਈ ਹੇਠ ਵਿੱਤੀ ਸਾਖਰਤਾ ਵਿਸੇ ਤੇ ਮਾਹਰ ਗੱਲਬਾਤ ਦਾ ਆਯੋਜਨ ਕੀਤਾ। ਐਚਓਡੀ ਡਾ ਅਨਿਲ ਸੈਨੀ ਦੀ ਯੋਗ ਅਗਵਾਈ ਡਾ. ਮੁਨੀਸ ਨਾਗਪਾਲ, ਡਾਇਰੈਕਟਰ ਮੈਂਟਾ ਸਕਿਲਸ ਐਕਸਟੈਂਸਨ ਲੈਕਚਰ ਦਾ ਈ-ਸਰੋਤ ਵਿਅਕਤੀ ਸੀ। ਮਾਹਰ ਭਾਸਣ ਦਾ ਮੁੱਖ ਉਦੇਸ ਵਿਦਿਆਰਥੀਆਂ ਵਿੱਚ ਵਿੱਤੀ ਸਾਖਰਤਾ ਦੇ ਪੱਧਰ ਨੂੰ ਵਧਾਉਣਾ ਹੈ। ਡਾ ਮੁਨੀਸ ਨਾਗਪਾਲ ਨੇ ਵਿੱਤੀ ਸਾਖਰਤਾ ਦੀ ਪਛਾਣ ਅਤੇ ਮਹੱਤਤਾ ਨਾਲ ਵਿਸਾ ਸੁਰੂ ਕੀਤਾ। ਉਸਨੇ ਕਈ ਗੁਣਵ ਨਿਵੇਸ ਵਿਕਲਪਾਂ ਜਿਵੇਂ ਫਿਕਸਡ ਡਿਪਾਜਟਿ, ਪਬਲਿਕ ਪ੍ਰੋਵੀਡੈਂਟ ਫੰਡ, ਪੂੰਜੀ ਬਾਜਾਰ ਦੇ ਸਾਧਨ ਅਤੇ ਪੈਸੇ ਦੀ ਮਾਰਕੀਟ ਦੇ ਸਾਧਨ ਅਤੇ ਮਿਉਂਚਲ ਫੰਡਾਂ ਆਦਿ ਬਾਰੇ ਆਪਣੀ ਯੋਗਤਾਵਾਂ ਅਤੇ ਕਮੀਆਂ ਦੇ ਨਾਲ ਵਿਸਥਾਰ ਨਾਲ ਵਿਚਾਰ ਵਟਾਂਦਰੇ ਕੀਤੇ. ਉਸਨੇ ਇਨ੍ਹਾਂ ਵਿਕਲਪਾਂ ਜਿਵੇਂ ਕਿ ਆਨਲਾਈਨ ਅਤੇ ਆਫਲਾਈਨ ਵਪਾਰ, ਸਿੱਧੇ ਅਤੇ ਨਿਯਮਤ ਨਿਵੇਸ ਵਿਕਲਪਾਂ ਵਿੱਚ ਨਿਵੇਸ ਕਰਨ ਦੇ ਵੱਖ ਵੱਖ ਗਾਂ ਅਤੇ ਵਿਧੀ ਬਾਰੇ ਵਿਸਥਾਰ ਨਾਲ ਦੱਸਿਆ. ਸਰੋਤ ਵਿਅਕਤੀ ਨੇ ਵਿੱਤੀ ਸਾਖਰਤਾ ਦੇ ਪੱਧਰ ਨੂੰ ਉੱਚਾ ਚੁੱਕਣ ਲਈ ਸਿਕਿਓਰਟੀ ਐਕਸਚੇਂਜ ਬੋਰਡ ਆਫ ਇੰਡੀਆ, ਰਿਜਰਵ ਬੈਂਕ ਆਫ ਇੰਡੀਆ ਅਤੇ ਹੋਰ ਸੰਸਥਾਵਾਂ ਦੁਆਰਾ ਚੁੱਕੇ ਗਏ ਕਦਮਾਂ ਦੀ ਵੀ ਵਿਆਖਿਆ ਕੀਤੀ ਹੈ। ਉਸਨੇ ਨਿਵੇਸ ਕਰਦੇ ਸਮੇਂ ਕੀਤੀ ਜਾਣ ਵਾਲੀਆਂ ਸਾਵਧਾਨੀਆਂ ਬਾਰੇ ਵਿਚਾਰ ਵਟਾਂਦਰੇ ਕੀਤੇ ਹਨ. ਧੰਨਵਾਦ ਦਾ ਰਸਮੀ ਮਤ ਸਮਾਗਮ ਦੇ ਕਨਵੀਨਰ ਡਾ. ਸੁਮਨ ਟੰਡਨ ਦੁਆਰਾ ਦਿੱਤਾ ਗਿਆ। ਪ੍ਰਿੰਸੀਪਲ ਡਾ: ਮਨੋਜ ਕੁਮਾਰ ਨੇ ਵਿਭਾਗ ਨੂੰ ਸਮਾਗਮ ਦੀ ਸਫਲਤਾ ਲਈ ਵਧਾਈ ਦਿੱਤੀ ਹੈ। ਗੱਲਬਾਤ ਵਿਦਿਆਰਥੀਆਂ ਲਈ ਬਹੁਤ ਜਾਣਕਾਰੀ ਭਰਪੂਰ ਅਤੇ ਇੰਟਰਐਕਟਿਵ ਹੋ ਗਈ।

DAV Institute of Engineering & Technology

Department of Electrical Engineering

Sr. No: DAVIET/EE/2021/OT-023

Certificate

This is to certify that *Mr. / Ms.* *Rahul Karir* of B.Tech EE 2nd year has attended 60 Hours Organizational Training on **"Basics of MATLAB/ eTAP/ PSCAD/ Power World Simulator"** from **5th April, 2021** to **29th May, 2021** in **virtual mode** at DAV Institute of Engineering & Technology, Jalandhar.

Er. Mani Bansal	**Dr. Sudhir Sharma**	**Dr. Manoj Kumar**
Industrial Coordinator	HoD	Principal

Google Analytics Academy

Introduction to Data Studio
Certificate of Completion

Gaurav Thakur

Awarded for successfully completing
the course "Introduction to Data Studio"

Certificate expires June 5, 2024

JS
ACADEMY
CERTIFICATE
OF COMPLETION

PROUDLY PRESENTED TO
Gaurav Thakur

FOR COMPLETING THE **5-DAY WORKSHOP** ON

Creating Effective Dashboards

Conducted By
Mr. Jatan Shah
Microsoft Certified Trainer
Founder & CEO, JS Academy

Duration
1st to 6th
June, 2021

learn.jatanshah.in

Expert lectures (pics)

Some Glimpses of Picture Quiz held on 15 Sept 2021

Department of Civil Engineering events with association of ASCE

ਕੂੜੇ ਸੰਬੰਧੀ ਵਰਕਸ਼ਾਪ 'ਚ ਪੁੱਜੇ ਸਿਰਫ਼ ਅੱਧੀ ਦਰਜਨ ਕੌਂਸਲਰ

ਜਲੰਧਰ, 21 ਸਤੰਬਰ (ਸ਼ਿਵ ਸ਼ਰਮਾ)– ਕੂੜੇ ਨੂੰ ਸੁੱਟਣ ਤੇ ਉਸ ਨੂੰ ਤਰੀਕੇ ਨਾਲ ਡੱਬਿਆਂ 'ਚ ਪਾਉਣ ਬਾਰੇ ਹੋਈ ਵਰਕਸ਼ਾਪ 'ਚ ਅੱਧੀ ਦਰਜਨ ਦੇ ਕਰੀਬ ਕੌਂਸਲਰ ਹੀ ਪੁੱਜ ਸਕੇ। ਵਰਕਸ਼ਾਪ ਨਿਗਮ ਪ੍ਰਸ਼ਾਸਨ ਵੱਲੋਂ ਕਰਵਾਈ ਗਈ ਸੀ। ਨਿਗਮ ਵੱਲੋਂ ਇਕ ਸਿੱਖਿਆ ਇੰਸਟੀਚਿਊਟ 'ਚ ਕਰਵਾਈ ਗਈ ਵਰਕਸ਼ਾਪ 'ਚ ਸ਼ਾਮਿਲ ਹੋਣ ਲਈ ਵੀਰਵਾਰ ਨੂੰ ਨਿਗਮ ਦੇ ਸਟਾਫ਼ ਅਤੇ ਕੌਂਸਲਰਾਂ ਨੂੰ ਫੋਨ 'ਤੇ ਆਉਣ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿੱਤੀ ਗਈ। ਸ਼ਹਿਰ 'ਚ ਇਸ ਵੇਲੇ ਕੂੜੇ ਦੀ ਸਮੱਸਿਆ ਕਾਫ਼ੀ ਗੰਭੀਰ ਹੈ। ਵਰਕਸ਼ਾਪ 'ਚ ਜਗਦੀਸ਼ ਸਮਰਾਏ, ਡਾ. ਜਸਲੀਨ ਸੇਠੀ ਤੇ ਬਲਜੀਤ ਸਿੰਘ ਪ੍ਰੈਸ ਕੌਂਸਲਰ ਸ਼ਾਮਿਲ ਸਨ। ਵਰਕਸ਼ਾਪ 'ਚ ਸਾਰੇ ਕੌਂਸਲਰਾਂ ਅਤੇ ਨਿਗਮ ਦੇ ਅਫ਼ਸਰਾਂ ਅਤੇ ਸਟਾਫ਼ ਨੂੰ ਸੱਦਿਆ ਗਿਆ ਸੀ। ਵਰਕਸ਼ਾਪ 'ਚ ਕੌਂਸਲਰਾਂ ਦੇ ਵੱਡੀ ਗਿਣਤੀ 'ਚ ਨਾ ਪੁੱਜਣ 'ਤੇ ਜਿਥੇ ਕਈਆਂ ਦੇ ਚਿਹਰੇ ਲਟਕੇ ਸਨ, ਪਰ ਕਦੀ ਕੌਂਸਲਰਾਂ ਦਾ ਕਹਿਣਾ ਸੀ ਕਿ ਵਰਕਸ਼ਾਪ 'ਚ ਮਾਹਿਰਾਂ ਨੇ ਵਧੀਆ ਜਾਣਕਾਰੀ ਦਿੱਤੀ ਕਿ ਸੁੱਕੇ ਅਤੇ ਗਿੱਲੇ ਕੂੜੇ ਨੂੰ ਅਲੱਗ-ਅਲੱਗ ਡੱਬਿਆਂ 'ਚ ਪਾਇਆ ਜਾਵੇ ਪਰ ਨਿਗਮ ਪ੍ਰਸ਼ਾਸਨ ਨੇ ਕੁਝ ਸਮਾਂ ਪਹਿਲਾਂ ਦੇ ਦੋ ਰੰਗ ਦੇ ਅਲੱਗ-ਅਲੱਗ ਡੱਬੇ ਵੰਡੇ ਸੀ, ਪਰ ਬਾਅਦ 'ਚ ਇਹ ਯੋਜਨਾ ਸਿਰੇ

ਫੈਕਟਰੀ 'ਤੇ ਕਬਜ਼ਾ

ਨਹੀਂ ਚੜ੍ਹ ਸਕੀ। ਕੌਂਸਲਰ ਜਗਦੀਸ਼ ਸਮਰਾਏ ਦਾ ਕਹਿਣਾ ਸੀ ਕਿ ਜੇਕਰ ਲੋਕ ਦੇ ਡੱਬਿਆਂ 'ਚ ਸੁੱਕਾ ਅਤੇ ਗਿੱਲਾ ਕੂੜਾ ਪਾਉਣਗੇ ਤਾਂ ਇਸ ਲਈ ਟਰੱਕ ਵੀ ਅਲੱਗ-ਅਲੱਗ ਹੋਣੇ ਚਾਹੀਦੇ ਹਨ। ਵਰਕਸ਼ਾਪ 'ਚ ਨਿਗਮ ਦੇ ਕਮਿਸ਼ਨਰ ਸ੍ਰੀ ਦੀਪਰਵਾ ਲਾਕੜਾ ਹਾਜ਼ਰ ਸਨ ਤੇ ਕਦੀ ਮਾਹਿਰਾਂ ਨੇ ਵਰਕਸ਼ਾਪ 'ਚ ਹਾਜ਼ਰ ਲੋਕਾਂ ਨੂੰ ਕੂੜਾ ਸੁੱਟਣ ਤੋਂ ਲੈ ਕੇ ਗਿੱਲੇ ਕੂੜੇ ਦੀ ਖਾਦ ਬਣਾਉਣ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿੱਤੀ। ਇਸ ਬਾਰੇ ਕਈ ਰਾਜਾਂ 'ਚ ਚਲਦੇ ਪ੍ਰੋਜੈਕਟਾਂ ਬਾਰੇ ਵੀ ਜਾਣਕਾਰੀ ਦਿੱਤੀ। ਨਗਰ ਨਿਗਮ ਦੇ ਕਮਿਸ਼ਨਰ ਸ੍ਰੀ ਲਾਕੜਾ ਨੇ ਨਕੋਦਰ ਤੋਂ

ਇਲਾਵਾ ਹੋਰ ਥਾਵਾਂ 'ਤੇ ਚੱਲ ਰਹੇ ਕੂੜੇ ਦੇ ਪ੍ਰੋਜੈਕਟਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿੱਤੀ। 2 ਸਾਲ ਪਹਿਲਾਂ ਜਿੰਦਲ ਕੰਪਨੀ ਨੇ ਕੂੜਾ ਸੰਭਾਲ ਪ੍ਰੋਜੈਕਟ ਦਾ ਕੰਮ ਛੱਡ ਦਿੱਤਾ ਸੀ ਕਿਉਂਕਿ ਨਿਗਮ ਨੇ ਉਸ ਨੂੰ ਸਹਿਯੋਗ ਨਹੀਂ ਦਿੱਤਾ ਸੀ। ਕੰਪਨੀ ਬਾਰੇ-ਬਾਰੇ ਕੂੜਾ ਚੁੱਕਣ ਦਾ ਕੰਮ ਸਫਲਤਾਪੂਰਵਕ ਕੀਤਾ ਸੀ, ਪਰ ਨਿਗਮ ਪ੍ਰਸ਼ਾਸਨ ਉਸ ਨੂੰ ਪਲਾਂਟ ਲਗਾਉਣ ਲਈ ਜਗ੍ਹਾ ਨਹੀਂ ਦਿੱਤਾ ਸੀ। ਉੱਥੇ ਨਿਗਮ ਕਮਿਸ਼ਨਰ ਦੀਪਰਵਾ ਲਾਕੜਾ ਨੇ ਸ਼ਹਿਰ 'ਚ ਕੂੜੇ ਦੀ ਸਮੱਸਿਆ ਬਾਰੇ ਵਿਸਥਾਰ ਨਾਲ ਚਾਨਣਾ ਪਾਇਆ।

ਕੂੜੇ ਦੀ ਸਮੱਸਿਆ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿੰਦੇ ਹੋਏ ਕਮਿਸ਼ਨਰ ਦੀਪਰਵਾ ਲਾਕੜਾ। (ਸੱਜੇ) ਵਰਕਸ਼ਾਪ ਦੀ ਸ਼ੁਰੂਆਤ ਕਰਦੇ ਹੋਏ ਡਾ. ਜਸਲੀਨ ਸੇਠੀ ਤੇ ਨਾਲ ਕਮਿਸ਼ਨਰ ਦੀਪਰਵਾ ਲਾਕੜਾ, ਪ੍ਰਿੰਸੀਪਲ ਮਨੋਜ ਕੁਮਾਰ, ਐਸ. ਏ. ਅਬਵਨੀ ਚੌਧਰੀ ਤੇ ਹੋਰ।   ਤਸਵੀਰਾਂ : ਮੁਨੀਸ਼

NATIONAL LEVEL WORKSHOP CUM PAPER PRESENTATION COMPETITION 5th June, 2021

"National Level Workshop cum Paper Presentation Competition" through online mode, has been organized by the Department of Applied Sciences, for celebrating "World Environment Day" on the topics:

1) How to reduce Carbon Footprints: Need, Causes, Challenges and our Role & Responsibilities?
2) COVID 19 Pandemic: Causes, Preventions, Effects, Remedies and our Role & Responsibilities to fight against it.

STUDENTS PARTIPATED IN DECLAMATION AND ROLE PLAY ON SCIENCE DAY ON FEBRUARY 19, 2021
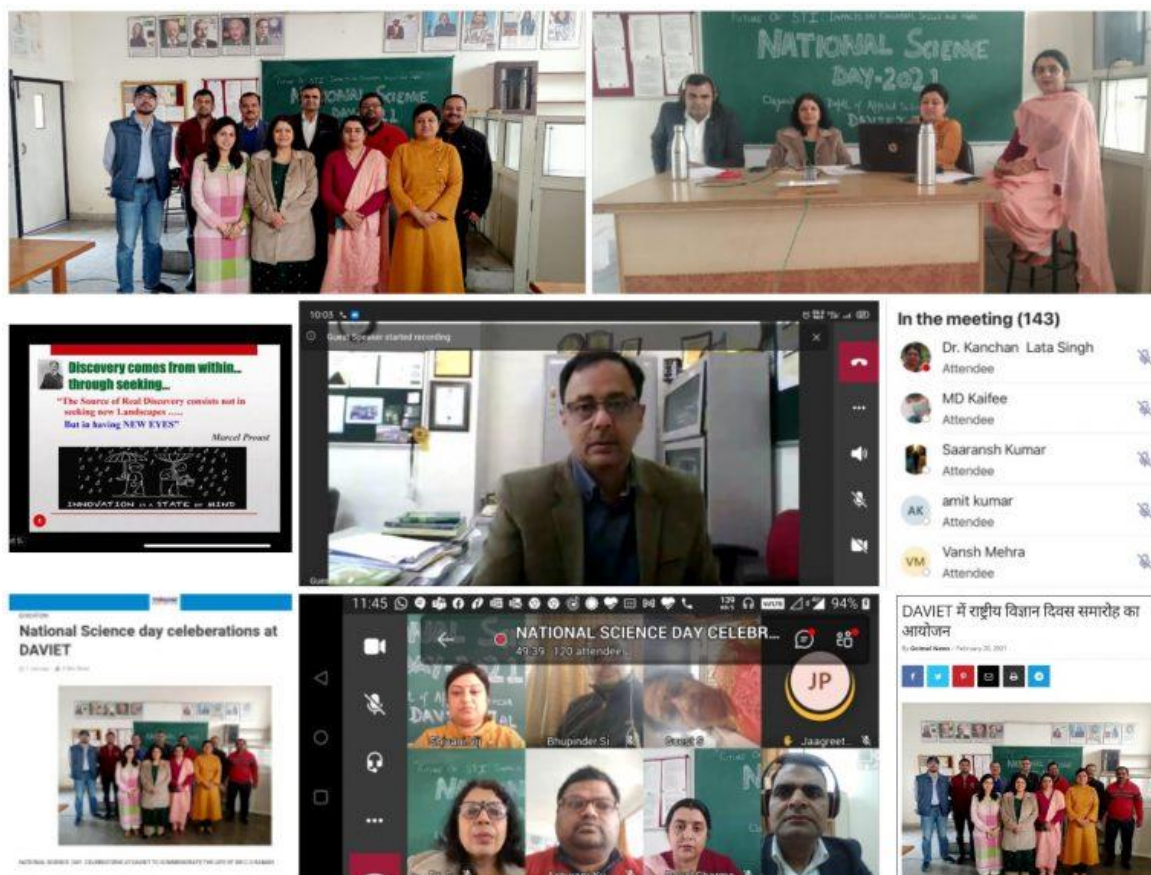
Declamation on the topic "Future of STI: Impacts on Education, Skills and Work" was won by Prabhjot Repal, from Swami Sant Das Public School, Phagwara while the first runners-up was Manmeet Kaur from DAVIET. The second Runners up in the event were Ruchika and Kamini. In Poster making the first prize was bagged by Pritika, from Swami Sant Das Public School while the second prize was won by Bhawna from DAVIET. The third position was bagged jointly by Prabhnoor Kaur from Swami Sant Das Public School and Kishpreet Kaur from DAVIET. In Role Play, the first position was won by Navreet kaur from DAVIET while the second position was bagged by Manviya Sahni from swami sant Das Public School.

DAVIET students selected in Whitehat Jr. learning programme

JALANDHAR: The 8 students from various departments of DAVIET were selected for Whitehat Jr. who will work for the company and pursue their degree simultaneously. The selected students Neha Sareen, Parneet Kaur, Shreya Arora, Pawni, Shubahngi, Muskan Jain, Sakshi Sadana and Nilakshi Ayri. Vishav Kapoor, Manager (Industry Interface) - Department of Training and Placement along with Ratish Bhardwaj and Kalpana Sharma appreciated the hard work put in by students. Dr. Manoj Kumar, Principal DAVIET congratulated the students and highlighted that DAVIETians have always been passionate about placements and special efforts are done to make them industry ready.

दीपक के 'जय भारत एग्रीटेक' बिजनेस आईडिया ने पाया पहला स्थान

जालंधर, 1 अगस्त (विनीत): डी. ए. वी. इंस्टीच्यूट ऑफ इंजीनियरिंग एंड टैक्नोलॉजी, कबीर नगर ने माईक्रो, स्माल एंड मीडियम एंटरप्राइजज, एम. एस. एम. ई. मंत्रालय, भारत सरकार व चंडीगढ़ ऐंजल्स नेटवर्क के सहयोग से बिजनेस स्टार्ट-अप इन्वैस्टर्स मीट का आयोजन किया गया, जिसमें विभिन्न संस्थानों के विद्यार्थियों ने 255 के लगभग बिजनेस आइडिया प्रस्तुत किए।

पैनेलिस्ट व निवेशकों के निर्णयानुसार दीपक के 'जय भारत

विजेताओं को पुरस्कृत करते प्रिं. मनोज कुमार।

एग्रीटेक' बिजनेस आइडिया ने पहला स्थान पाया, जबकि स्मृद्ध खन्ना के 'मैगाजो' आइडिया ने दूसरा व शांभवी के 'सीविएस साल्यूशन्स' के आइडिया ने तीसरा स्थान हासिल किया। विजेताओं को प्रिंसीपल मनोज कुमार ने पुरस्कृत किया।

# डेविएट में मशीन लर्निंग प्लेटफॉर्म पर करवाया सैमीनार

विद्यार्थियों को संबोधित करते हुए एकांत पुरी।

जालंधर, 3 जनवरी (डोगरा) : डेविएट में मशीन लर्निंग प्लेटफॉर्म पर सैमीनार करवाया गया, जिसमें मशीन लर्निंग और आर्टीफीशियल इंटैलीजैंस में अलग-अलग एप्लीकेशन के बारे में जानकारी दी। आई.टी. विभाग के इंचार्ज डा. दिनेश कुमार ने विद्यार्थियों को गूगल मशीन सप्लाई के मॉडल की सिखलाई कैसे की जाती है, इसके बारे में बताया। गूगल द्वारा क्राऊड सोर्स से एकांत पुरी ने मशीन लर्निंग और आर्टीफोशियल इंटैलीजैंस में विभिन्न एप्लीकेशन और डोमेन क्षेत्रों पर चर्चा की। उन्होंने छात्रों को बताया कि कैसे गूगल मशीन सीखने के मॉडल को प्रशिक्षित किया जाए।

उन्होंने यह भी चर्चा की कि क्राऊड सोर्स का उपयोग करके एक एप्लीकेशन, जो सभी को गूगल ऊपादों में योगदान करने में सक्षम बनाता है, एप्लीकेशन क्राऊड सोर्स का उपयोग करके प्रशिक्षण मशीन लर्निंग मॉडल कैसे काम करता है, वह जानने के लिए एक प्रैक्टिस प्रदान करता है और कैसे छात्रों को इसकी पहुंच मिलेगी। मशीन लर्निंग और आर्टीफीशियल इंटैलीजैंस पर बुनियादी प्रशिक्षण से स्थानीय समुदायों को गूगल के समर्थन का नेतृत्व करने का अवसर मिलेगा। कालेज के प्रिंसीपल डा. मनोज कुमार ने सूचना और प्रौद्योगिकी विभाग द्वारा किए गए प्रयास की सराहना की।

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Webinar on 'Current Trends in Internet and Wireless Communication Technologies' held at DAVIET
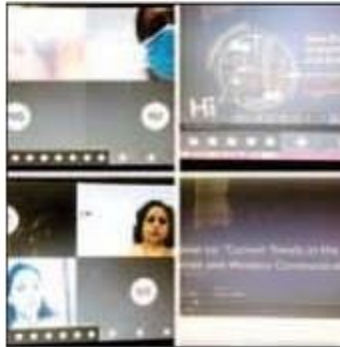
JALANDHAR: Department of Computer Science and Engineering, DAVIET under the guidance of Dr. Manoj Kumar, Principal had organized a webinar on "Current Trends in the Internet and Wireless Communication Technologies". The moderator of the webinar was Dr. Neetu Ghalwat, Asstt Prof (CSE). The speakers for the lecture was Dr. Shuchita Upadhyaya Bhasin, Professor from Kurukshetra University Kurukshetra and Hitesh Chhabra, Head-Enterprises IP Networks Solutions at Huawei Technologies. More than 280 participants were registered from various Colleges, Organization and Industry in the Webinar. Dr. Harpreet K Bajaj, Head of department concluded the webinar with a vote of thanks to speaker and all the participants.

Problem solving (Coding Competition – Code Chef)

<u>Report of Coding Event by Prisma Club</u>

- A coding contest was organized by the Department of Computer Science and Engineering on 9/11/2020 for students to demonstrate their coding skills and proficiency in programming.
- The event was hosted online on Codechef which is a leading competitive programming community of programmers from across the globe and organized by Prisma Club.
- The contest comprised of four questions from data structures and algorithms for which allocated time to complete was three hours.
- The top three winners for the event were Pratik Gupta (CSE-7th sem), Madhav Verma (CSE-5th sem) and Shriya (CSE-3rd sem).

REPORT ONENTREPRENURSHIP & PROJECT MANAGEMENT ACTIVITY

BATCH 2022

Description of the activity

Name of the Activity	Business plan presentation
Subject	Entrepreneurship& Project management
Class	MBA 2ND SEM
Year	2021-2023

The activity was aboutBusiness Plan presentation. It involved good research about the industry, proper clarity of the business model and good communication skills.

Our presentations were all about finding a viable Business Model which could be implemented in real life. Firstly, it involved finding individuals interest, and then the transformation of Individual's interest into a business plan. It required proper Industry analysis, competition analysis and obstacles and Challenges faced by the already established businesses. Further we tried to solve the existing problems faced by the consumes through our Goods and Services. Lastly, our business plans also included Cost analysis and Revenue Model.

The activity was allotted on 00-00--2022 and was conducted in between00-00-2022 to 00-00-2022.

Procedure Followed

1. Finding your IKIGAI

    - Ikigai is a Japanese concept that means your 'reason for being.' 'Iki' in Japanese means 'life,' and 'gai' describes value or worth. Your ikigai is your life purpose or your bliss. It's what brings you joy and inspires you to get out of bed every day.

2. Conversion of your Ikigai into a viable Business Model.

3. Industry Analysis and Competitor Analysis

4. Selecting the 'Company Name' and 'Logo'

5. Forging VISION, MISSION and OBJECTIVES

6. Establishing USP (Unique Selling Proposition)

7. Description of Product and Services to be offered

8. Selection of Target Market and Consumers

9. Selection of Marketing and Sales Strategy

10. Cost Analysis and Revenue Model

11. SWOT Analysis of the Model

12. Future Strategy and Growth Optimization

❖ **Various discussions were held in the Class with our Teacher, while executing every single step.**

How it was performed

- Activity was assigned to our Class two weeks prior, the actual Class presentation.

- Fixed time limit was allotted to each and every student for presenting his/her business plan.

- Presentation was conducted in alphabetical order

- Business plan was judged on various parameters like the Description of the Business Model, its uniqueness (USP), Industry Analysis, Revenue and Cost Analysis etc.

Learning outcomes:

- We learned about different parts of the Business Plan
- We learned about various new terms and jargons like IKIGAI etc.
- This activity helped us to create concise presentations.
- It improved our confidence and communication skills.
- We learned how to prepare material for public presentation.
- It helped us to manage time by delivering whole topic in given time.

- This activity improved our critical thinking ability.

- We learned about the Real-life applications and procedures like

    i. Company Registration

    ii. Applying for GST

    iii. Applying for Trade mark registration

    iv. Filing for Patents etc.

Our experiences

B-Plan Presentation was one of the most novel experiences for the whole class. We faced lots of challenges while formulating the Business plans. Firstly, we were made to think out of the Box. We were let free to use our imagination and creativity. We tried to use our creativity to Solve real life problems with a pragmatic approach. We used our skills to forge viable Business plans.

As Bismarck once said "Only fools learn from his own mistakes, the wise man learns from the mistake of others." While creating Business plans, we did Industry Analysis and Competition Analysis. We analyzed the fundamental issues which were hampering their growth. We tried to resolve the issues of the current Industry with the help of our Business Plans.

We made the most productive use of the Internet while creating Business plan. We designed our logos, Taglines and presentations using the technology. We designed our presentations using Microsoft Office, Google slides, Canva etc. We let our imagination to go into free flow while creating logos and presentations.

Through this activity, we learned about different Types of Business Models, Marketing strategies and Tactics. We applied these models like 'Razor blade theory' and 'Hub and spoke model' while making Business plans.

We created prototypes of our products and samples were circulated in the class. We received productive criticism. We will implement the feedback received to further improve our product.

We also presented our business plan in our class. While giving presentations we learned about various technicalities like pronunciation, pause, pitch of the voice etc. We experienced time constraint and learned about Time Management.

At the end of the presentations, we faced question from the audience regarding the B-plan. We tried to provide satisfactory answers to all the questions. Through this activity we realized an exponential boost in our Confidence and Self-esteem.

Picture Gallery

Students presenting thier B-plan activity

Conclusion

In the end we can conclude that, B-plan Presentation have been one of the most memorable experiences for us. We learned the most valuable skills like Logo Designing, Presentation making, Speaking skills, Time Management etc. These skills will not only help us Academic life, but in our professional lives also. We gained a novel experience, we engaged with our class fellows at a whole new level. This activity helped us to learn timeless skills, which will be ultimately helping us to enhance our knowledge bases. We all are looking forward to register our businesses and file patents for our Logo Designs and Process Innovations.

APPENDIX

ROLL NUMBER	NAME	B-plan
2102/21	Aashmine	Dadde maa dee Mathi
2112/21	Bhavneet singh	Hindbhoomi tours
2114/21	Dhritika palta	Palta Aroma Skin Beauty Cream
2104/21	Akash R	Akash Financial Solutions
2131/21	Neel Dogra	Oatry, KOKOFY, Bright-o, ND Solutions & consultants
2108/21	Anjali Mehta	Fortago fitness (Yoga Mat)
2101/21	Aarushi	Brush days
2129/21	Muskan chawla	WOOFZANIA (pet care business)
2117/21	Gunjan	Organic lip colors
2137/21	Raghav Soni	Leather Wallets
2110/21	Ashima sharma	Raas dance academy
2148/21	Shivam	Protein powder
2149/21	shivani	DOUGH ME A FLAVOUR (cakes business)
2153/21	Sudanshu	Car spare parts
2125/21	KRITIKA AGGARWAL	Creativity and innovation : Ecofriendly Tree Ganesha
2154/21	Swati Singh	SWT organic chocolate company
2155/21	Tanisha Meenia	Fitness power gym

Emerging Brands:

MBA **2**nd Semester   Batch **2022**

ND SOLUTIONS
&CONSULTANTS

CAR -SPA
Your Car's Best Friend

DOUGH ME A FLAVOUR

Euforia Lipsticks
Rule The World

प्रगति

THE
JUTE BAG
COMPANY

KHANA MAKHANA
KM

bake n take
THE SWEETEST STOP ON
YOUR JOURNEY

BRIGHT-O
TEETH CLEANER