CRITERIA - 7: INSTITUTIONAL VALUES AND BEST PRACTICES

7.3 Institutional Distinctiveness

The Institute aims to represent this via excremental and reject- based studying in teaching gaining knowledge of manner together with study Institute – Industry interaction and research possibilities.

Our Institutes follows a few practices which are precise which separates us from different institutes like:

1. Faculty available in the department for solving the queries before the exam
2. Staff presentation for review
3. Google Classroom implementation
4. University Question Papers available
5. International Collaboration and MOU
6. One Publication per Faculty

The Institute conducts training for college students performing for GATE examination a good way to pursue the higher education.

The Institute arranged seminars to inspire the scholars for MPSC and UPSC aggressive examinations.

Industrial visits are organized for college students for his or her exposure to industry and have interactions with industry specialists.

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Startup/ incubation center is setup in Institute to promote and enhance entrepreneurship ability among students. Institute has signed MOUs with one-of-a-Kind industries and institutes for improving technical talent. Institute has setup research and improvement cell to inspire students for providing the papers at numerous technical conferences and Institute is supplying platform to faculties for guides on unique subjects.

Guest lectures are arranged for college students to impart one of a kind subject understanding, understand modernday tendencies in technologies and clean doubts related to distinctive publications.

College students are encouraged to soak up internships during their semester holidays. The references are given for numerous corporations. The faculty of the institute continues robust commercial links.

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CRITERIA - 7: INSTITUTIONAL VALUES AND BEST PRACTICES

7. 3 Institutional Distinctiveness

1. Faculty available in department for Solving the queries before the exam Objective

• To encourage the students to clear up their questions in respective topics.

• Rendering awareness at the wishes of a scholar.

• Obtaining the right understanding of essential topics of subject.

• Assist the scholars to develop a passion to win and a global mindset

• Motivate the students to achieve the goal, develop trouble-fixing skills.

The Context:

• Providing right direction, students are able to solve the queries of college paper. Through those classes, the scholars might be able to expand certain hassle-fixing skills which to an extent assist them address specific problem.

• All of the documents of this pastime must be maintained in the university with data shared and information of college timetable and students' attendance.

The practice:

• The time table is ready and given to the college members to prepare and gift the received information to the audience (students) in session with the heads of the departments concerned.

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Proof of fulfillment:

• Outcome of these practices permits the college participants to encourage the college students to advance in getting to know the core curriculum and elaborated upon it. The findings suggest that visualizing knowledge construction in a shared mind map supports students to learn a core curriculum and to refine their knowledge structures.

• It will have greater self-assurance in their knowledge of the concern be counted.

• It will demonstrate the capacity to remedy issues that arise within the field.

Difficult troubles:

• Assets are the principle demanding situations for participation within the opposition.

• Without management's involvement and guide, the first-rate practices can't be applied.

• Students, who is the target audience of the Institute require mindset and willingness on the part of the facilitator, for achievement of such practices.

• For success of such practices degree of motivation required, within the minds of the scholars.

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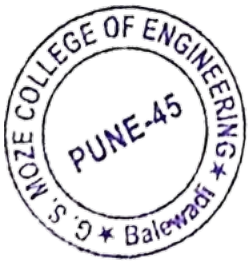
SCHEDULE OF ALL BRANCES FOR REVISION OF EXAM

Sr. no.	Name of Faculty	Name of Module	Date	Time		Branch
1	Prof.S.Gaikwad	Object oriented programming	11/10/2020	10:00 AM	11am	IT
2	Prof Ketaki Katre	Database management sys	11/10/2020	2pm	3:00 PM	IT
3	Prof. Sana Shaikh	Computer org & architecture	11/10/2020	2pm	3:00 PM	IT
4	Prof. Shetal Mahale	Discrete maths	11/10/2020	10:00 AM	11am	IT
5	Prof.S.Gaikwad	Fund of data structure	11/11/2020	10:00 AM	11am	IT
6	Prof. Kaveri Kari	Human computer interface	11/11/2020	2pm	3:00 PM	IT
7	Prof. Shetal Mahale	Software engg prg mng	11/11/2020	10:00 AM	11am	IT
8	Prof. Akshada Dighe	Theory of computation	11/12/2020	2pm	3:00 PM	IT
9	Prof. Kaveri Kari	Machine learning	11/12/2020	2pm	3:00 PM	IT
10	Prof Ketaki Katre	Software design modeling	11/12/2020	10:00 AM	11am	IT
11	Prof. Akshada Dighe	Software testing quality assurance	11/5/2020	10:00 AM	11am	IT
12	Prof. Sana Shaikh	Business intelligence	11/5/2020	2pm	3:00 PM	IT
13	Prof. Bharti Kudale	Infrmation & cyber security	11/5/2020	10:00 AM	11am	Computer
14	Prof. Pallavi Patil	Pervassisve computing	11/6/2020	10:00 AM	11am	Computer
15	Prof. Sneha Farkade	Object oriented programming	9/11/2020	10:00 AM	11am	Computer
16	Prof. Archana Burujwale	ElectiveIII -Embedded and RTOS	11/11/2020	10:00 AM	11am	Computer
17	Prof. Archana Burujwale	Principles of programming Language	8/5/2020	10:00 AM	11am	Computer
18	Prof. Jayshree Kawale	Computer graphics	9/5/2020	2pm	3:00 PM	E&TC
19	Prof. Harshalata Mahajan	Signals and system	11/5/2020	2pm	3:00 PM	E&TC
20	Prof. Shushma Patwardhan	Electronic devices and circuit	23/11/2020	2pm	3:00 PM	E&TC
21	Prof. Shilpa Bhoyar	Electrical circuits and machince	26/11/2020	2pm	3:00 PM	E&TC
22	Prof. Awanti Borawake	Data structures and algorithm	28/11/2020	2pm	3:00 PM	E&TC
23	Prof. Komal	Digital Elctronics	30/11/2020	2pm	3:00 PM	E&TC
24	Prof. Harshalata Mahajan	Digital Communication	3/12/2020	2pm	3:00 PM	E&TC
25	Prof. Kawale Jayashri.N	Digital signal processing	25/11/2020	2pm	3:00 PM	E&TC
26	Prof. Komal Wanzare	Electromagnetics	27/11/2020	2pm	3:00 PM	E&TC
27	Prof. Sukruti Tori	Microcontrollers	29/11/2020	2pm	3:00 PM	E&TC
28	Prof. Sukruti Tori	Mechatronics	2/12/2020	2pm	3:00 PM	E&TC
29	Prof. Sushma Patwardhan	VLSI design & Technology	5/12/2020	2pm	3:00 PM	E&TC
30	Prof. Komal Wanzare	Computer Network & Security	21/11/2020	2pm	3:00 PM	E&TC
31	Prof. Dhananjay A.S	Engineering Mechanics	25/11/2020	10:00 AM	11am	FE
32	Prof. Prathamesh S. Gorane	Basic electrical engg	27/11/2020	10:00 AM	11am	FE
33	Prof. Prathamesh S. Gorane	Engineering grapics	29/11/2020	10:00 AM	11am	FE
34	Prof. Archana Yadav	system in mechanics engineering	2/12/2020	10:00 AM	11am	FE
35	Prof. Dhananjay A.S	Basic electronics	26/10/2020	10:00 AM	11am	FE
36	Prof. Archana Yadav	Mathematics	12/11/2020	10:00 AM	10:00 AM	FE
37	Prof.Roundal Vijay B.	Design of machine elements-I	26/10/2020	10:00 AM	10:00 AM	Mechanical
38	Prof. Vaibhav C. Rahinj	Manufacturing process 1	11/11/2020	10:00 AM	10:00 AM	Mechanical
39	Prof. Sachin Yadav	Strength of material	9/11/2020	10:00 AM	10:00 AM	Mechanical
40	Prof. Shilpa Mahajan	Infra & Const engg	11/11/2020	10:00 AM	10:00 AM	Civil
41	Prof. Shalakha	Advan Concrete tech	13/11/2020	10:00 AM	10:00 AM	Civil
42	Prof. Poonam	Total Qaulitymg&miss	11/10/2020	10:00 AM	10:00 AM	Civil



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7. 3 Institutional Distinctiveness

2. Faculty Presentations on the preparation and conduction of the course

Objective:

- Develop boundary-crossing skills, such as inter-disciplinary thinking, synthesizing knowledge of different disciplines and to cope with complexity
- Ensure the knowledge sharing among the faculty members of various disciplines
- Make them understand the unknown from known concepts.
- Foster in-depth learning of the concepts and understanding of varied topics.
- Promote and enhance the inter-disciplinary learning by the faculty members as well as the students through inter-department lectures

The Context:

- This event is to provide an opportunity for the faculty members of all departments to share their knowledge with the peer group members.
- The schedule is prepared in advance for the faculty members to share the knowledge on inter-disciplinary fields and the faculty members participate in this programmed.
- A record of this activity is maintained in the college with information shared and details of faculty attended.

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The Practice:

- The schedule is prepared and given to the faculty members to prepare and present the acquired information to the target audience (students) in consultation with the heads of the departments concerned.
- A record of the programmed is maintained.

Evidence of Success:

- Outcome of this practice enables the faculty members to find out shortcomings in their delivery, notes, and expectations etc. They can rectify those before actually delivering the lecture.

Challenging Issues:

Resources are the main challenges for participation in the competition.

- Management support: Without Management's involvement and support, the best practices cannot be implemented.
- For success of such practices require attitude and willingness on the part of the facilitator without which it is difficult to motivate students which is the target audience of the Institute.
- Degree of motivation required in the minds of the students can result in success of such practices

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Balewadi, Pune - 411 045
Department : E&TC
Subject Presentation Report

Sr.No.	Faculty Name	Subject	1		2		3		4		5		6	
			Date	Sign	Date	Sign	Date	Sign	Date	Sign	Date	Sign	Date	Sign
1	Prof.Sushma Pathwardhan	AVE / BE	4/2/2021		11/2/2021		18/2/2021		24/2/2021		4/3/2021		11/3/2021	
2	Prof.Harshalata Mahajan	AC / TE	4/2/2021		11/2/2021		18/02/2021		24/2/2021		4/3/2021		11/3/2021	
3	Prof.Sujata Girawale	AP / BE	5/2/2021		12/2/2021		20/2/2021		25/2/2021		5/3/2021		12/3/2021	
4	Prof.Komal Wanzare	BCS / BE	5/2/2021		13/2/2021		20/2/2021		25/2/2021		5/3/2021		12/3/2021	
5	Prof.Sukruti Taori	PCS / SE	6/2/2021		14/2/2021		21/2/2021		27/2/2021		6/3/2021		13/3/2021	

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Balewadi, Pune

Department: Information Technology

Subject representation report

Sr. no.	Name of Faculty	Subject	1		2		3		4		5		6	
			Date	Sign	Date	Sign	Date	Sign	Date	Sign	Date	Sign	Date	Sign
1	Prof Akshada Dighe	MLA	7/7/20	ADighe	13/7/20	ADighe	25/7/20	ADighe	1/8/20	ADighe	9/8/20	ADighe	16/8/20	ADighe
2	Prof Swati Gaikwad	OOP	4/7/20	[illegible]	16/7/20	[illegible]	25/7/20	[illegible]	1/8/20	[illegible]	9/8/20	[illegible]	16/8/20	[illegible]
3	Prof Kaveri Kasar	BCN	5/7/20	[illegible]	13/7/20	[illegible]	23/7/20	[illegible]	2/8/20	[illegible]	9/8/20	[illegible]	16/8/20	[illegible]
4	Prof Ketaki Katre	DM	8/7/20	KKatke	13/7/20	KKatke	25/7/20	KKatke	2/8/20	KKatke	9/8/20	KKatke	16/8/20	KKatke
5	Prof Sana Shaikh	COLD	4/07/20	[illegible]	13/7/20	[illegible]	25/7/20	[illegible]	8/8/20	[illegible]	9/8/20	[illegible]	16/8/20	[illegible]
6	Prof Sheetal Mahalle	OS	4/07/20	[illegible]	13/7/20	[illegible]	25/7/20	[illegible]	1/8/20	[illegible]	9/8/20	[illegible]	16/8/20	[illegible]
7	Prof Akshada Dighe	PPS	5/07/20	ADigh	13/7/20	ADegh	25/7/20	ADigh	1/8/20	ADigh	9/8/20	ADigh	16/8/20	ADigh
8	Prof Swati Gaikwad	STQA	5/07/20	[illegible]	13/7/20	[illegible]	23/7/20	[illegible]	5/8/20	[illegible]	9/8/20	[illegible]	9/8/20	[illegible]

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7. 3 Institutional Distinctiveness

3. Google Classroom implementation

Objective:

- Google Classroom is a free internet service that aims to make creating, sharing and grading assignments in a paperless manner as simple as possible.
- The primary goal of Google Classroom is to make document sharing between teachers and students more efficient.

The Context:

- Google Classroom can assist with a variety of grading schemes.
- Teachers have the option of attaching documents to the project that students can see, edit, or obtain a personal copy of.
- If the instructor did not generate a duplicate of a document, students can create their own and attach them to the project.
- Teachers have the option of displaying each student's progress at the project, where they can provide comments and amend.
- Turned-in assignments may be graded by the instructor and then returned with comments to allow the student to rework the project and resubmit it.
- Assignments can be modified by the trainer until the trainer turns the project in again after it has been graded.

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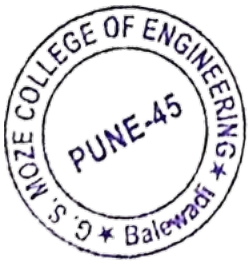
- The Google Classroom mobile apps, which were released in January 2015, are available for iOS and Android smart phones. Customers may snap photos and attach them to their assignments, share documents from other applications, and use the apps offline.

The Practice:

- Assignments are stored and graded in Google's Productivity App Suite, which enables teacher-student or student-student collaboration.
- Files hosted by the teacher on the student's drive and students submit and grade these assignments.
- The teacher can choose a file that can be treated as a template. This allows each student to edit their copy and then undo it for scoring, rather than allowing all students to view, copy, or edit the same document.
- Students can also attach additional documents to the assignment from the drive.

Evidence of Success:

- The Google have a look at room helped all university college students while in-Sem exam and give up Semester checks for reference of syllabus, topics cover, likely questions within side the precept exam, previous year’s question papers etc.
- Google Classroom is available cell apps, therefore university college students can get proper of access to it from their home and nearby place as well



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- Grading of the assignments is straightforward for faculties and the quit end result is disclosed without delay which helps university college students with their progress.

Challenging Issues:

- Resources are the number one challenges
- Differing device capability and instruction
- Lack of precise sufficient ICT Support, infrastructure, time.
- Internet connectivity

Evidence of Google Classroom activities followed by all faculty members:

SR.NO	NAME OF TEACHER	NAME OF MODULE	PLATFORM	DATE	MODULE CODE
1	Prof.Aparna Patil	Theory of computation	Google Classroom	1/8/2020	obo6mef
2	Prof.Aparna Patil	Data Structure	Google Classroom	10/8/2020	hlkitm6
3	Prof.Aparna Patil	Object Oriented Programming	Google Classroom	10/4/2020	hlkitm6
5	Prof.Aparna Patil	Embedded system and Internet of th	Google Classroom	10/4/2020	obo6mef
6	Prof. Santosh R Sandanshi	Engineering Materials and Metallurg	Google Classroom	10/8/2020	oqwhkaf
8	Prof. Santosh R Sandanshi	Design of Machine Elements - II	Google Classroom	12/8/2020	edrjwko
9	Prof. Harshalata Mahajan	Computer Network & Security	Google Classroom	10/8/2020	sh4bu36
10	Prof. Harshalata Mahajan	Control System	Google Classroom	12/1/2021	ms6wnra
11	Prof. Harshalata Mahajan	Wireless Sensor N/W	Google Classroom	12/10/2021	
13	Prof. Pallavi Patil	Object Oriented Programming	Google Classroom	12/110/2020	obo6mef
17	Prof. Pallavi Patil	Computer Graphics	Google Classroom	12/10/2020	obo6mef
19	Prof. Pallavi Patil	Software Engineering	Google Classroom	12/10/2020	tcxjaht
21	Prof. Pallavi Patil	Software Modeling & Design	Google Classroom	8/8/2020	tcxjaht
24	Prof.Shilpa Mahajan	IECT	Google Classroom	10/8/2020	b5zdof4
25	Prof.Shilpa Mahajan	MOS	Google Classroom	10/8/2020	ewejy5f
26	Prof.Komal Wanzare	DIVP	Google Classroom	21/11/2020	ej6hdse
28	Prof.komal Wanzare	Electronic circuits	Google Classroom	2/11/2020	cvzhc7p
29	Prof.komal Wanzare	BCS	Google Classroom	10/5/2021	ldudrgh
30	Prof.komal Wanzare	SS	Google Classroom	5/5/2021	utxa3es
31	Dr. V.B. Roundal	Design of Machine Elements	Google Classroom	10/8/2020	gci45pg
32	Dr. V.B. Roundal	Product Design and Development	Google Classroom	21/11/2020	cad5zst

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7. 3 Institutional Distinctiveness

4. University Question Papers available in Library

Goal:

• solution is supplied to get the way to pupil to efficiently put together for university exam.

• Additionally assist students to score in a particular concern.

• Clean to recognize the stairs to solve extra complex problems in simplest manner.

The Context:

• This activity of supplying strategyto the college question paper, pupil has capable of clearly apprehend with the ideas of unique subjects.

•This additionally allows to increase the expertise of subject through clean knowledge of that solved query.

• File of college attendance is to be maintained in university along with shared records.

The practice:

• In the library, prepared question paper answer set is maintained.

• A report of the programmed is maintained.

Proof of success:

• final results of these practices to inspire the scholars to question paper solution.

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Difficult issues:

• Assets are the primary demanding situations for participation in the competition.

• College students, who is the target market of the Institute require attitude and willingness on the part of the facilitator, for success of such practices.

• For success of such practices diploma of motivation required, inside the minds of the scholars.

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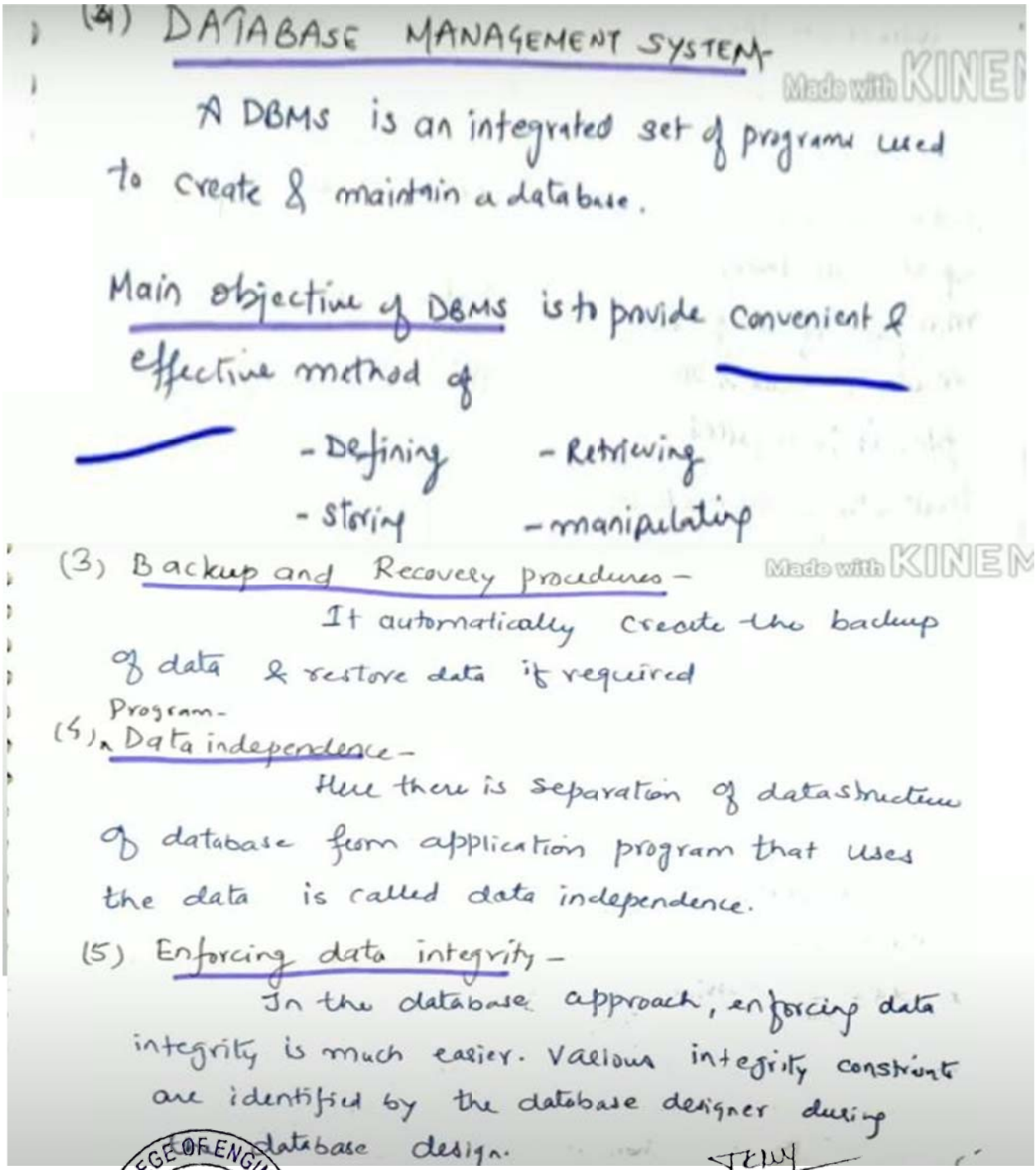
Sample Solution:

Q. What is DBMS? Explain advantages and disadvantages of DBMS.



(4) DATABASE MANAGEMENT SYSTEM

A DBMS is an integrated set of programs used to create & maintain a database.

Main objective of DBMS is to provide convenient & effective method of

- Defining
- Retrieving
- Storing
- manipulating

(3) Backup and Recovery procedures –

It automatically create the backup of data & restore data if required

(4) Data independence –

Here there is separation of datastructure of database from application program that uses the data is called data independence.

(5) Enforcing data integrity –

In the database approach, enforcing data integrity is much easier. Various integrity constraints are identified by the database designer during database design.

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Advantages & Disadvantages of DBMS

ADUANTAGES OF DBMS

(1) Controlling Data Redundancy-

Data is recorded in only one place in the database & it is not duplicated. It saves the storage space.

(2) Data Consistency-

Data item appears only once (no redundancy). So the updated value is immediately available to all users.

(6) Data Sharing-

The data stored in the database can be shared among multiple users or application programs.

(7) Ease of application development-

The application programmer develops the application programs according to the needs of the users.

Other tasks are handled by DBMS like concurrent access, security, data integrity etc.

This makes application development an easier task.

(8) Data Security —

The DBMS ensures that the only means of access to the database is through an authorized channel. To ensure security, DBMS provides security tools such as user codes & passwords.

(9) Supports multiple views of the data

A database can be accessed by many users & each user have a different view of the data. A database system provides a facility to define different views of the data for different users.

(10) Data Atomicity — It is the duty of DBMS to store a complete transaction in database. If any transaction is partially completed then it roll backs them

(11) Concurrency control - If two users are accessing data simultaneously & they both want to update values of same record then it may create inconsistency. DBMS has the power to control concurrency so that no transactions are lost.

DISADVANTAGES OF DBMS

(1) Cost of Hardware & Software -

Installing a new database system may require investment in hardware & software.

Processor with high speed of data processing & memory of large size is required.

DBMS is quite expensive, therefore a company needs to consider the overhead cost of implementing a new database system.

(2) Cost of staff training or training new personnel –

When an organizatim plans to adopt a database System, it may need to recruit or hire a specialized data administratim group which can coordinat with different users groups. Hiring such proffessionals is expensi Also lot of training of staff is required to run DBMs

(3) System failure –

When a computer system containing the database fails, all users have to wait until the system is functional again.

A parmanent damage may also occur to the database, if DBMs or the applicatim program fails.

4) Explicit backup & Recovery –

To make shared database accurate & available at all times, a system using on-line updating requires explicit backup & recovery procedures.

Digital communication

Q1. With the help of detail diagram explain function of each block of Digital communication system. – Oct.2017,Dec 2016,15,13

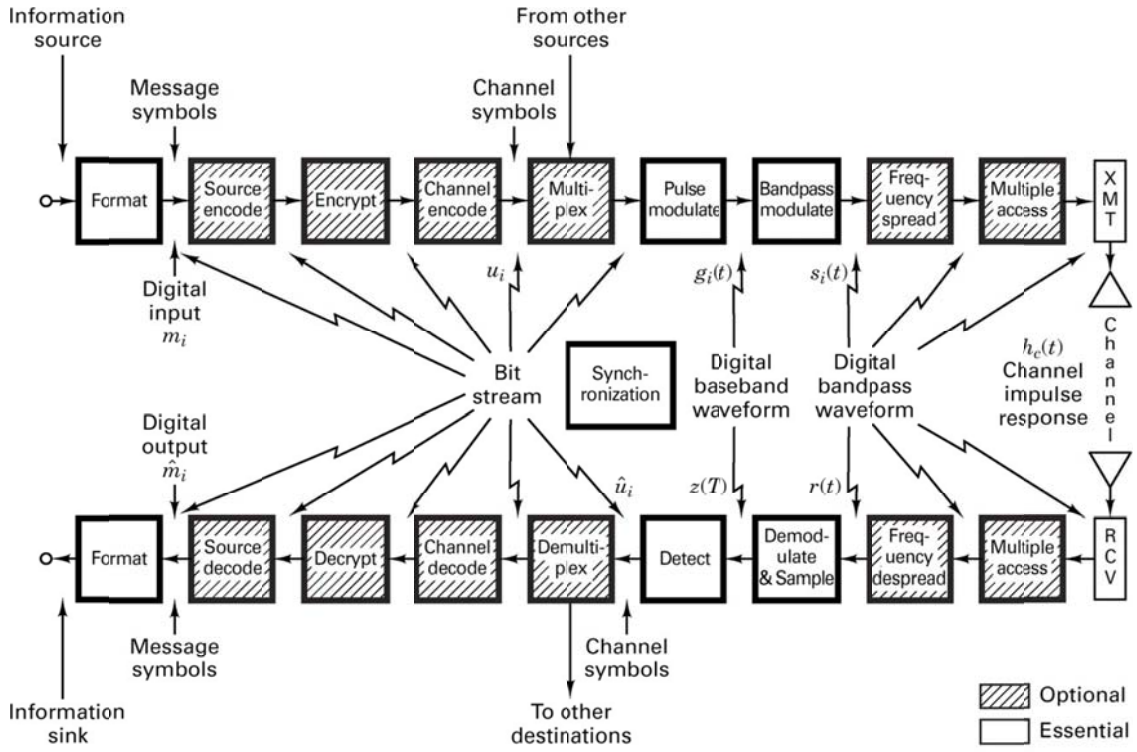

Figure 1.2 Block diagram of a typical digital communication system.

Book — B. Sklar / Ray

Camlin Page
Date / /

Transformation Classified into the following nine groups :

1. Formatting and Source Coding
2. Baseband Signaling
3. Bandpass Signaling
4. Equalization
5. Channel Coding
6. Multiplexing and multiple access
7. Spreading.
8. Encryption.
9. Synchronization.

1. Formatting and Source Coding are similar processes, in that they both involve data digitization.

Formatting — The information generated by source needs to be converted into binary format. The formatting block convert the source message into bits which are grouped to form a message symbol (mi). e.g. Audio signal is converted into the bits using Pulse code modulation (PCM)

Source Coding — Source coding is used at the receiver to decompress this message.

2. Baseband Signaling —

Baseband Signaling block contains a list of binary choices under the heading of PCM waveforms or line codes. M-ary pulse modn. also in that.

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3. Bandpass Signaling —

is partitioned into two basic blocks, Coherent and noncoherent.

Demodulation is typically accomplished with the aid of reference waveforms.

When the references used are a measure of all the Signal attributes (particularly Phase), the process is termed Coherent, when Phase informat^{n}. is not used, the process is termed noncoherent.

Equalization — is the reversal of distortion incurred by a Signal transmitted through a Channel.

In digital Comm^{n}., the equalizer's purpose is to reduce intersymbol interferance to allow recovery of the transmitt. Symbols.

It may be a Simple linear filter or a Complex algorithm.

Channel Coding —

Channel Coding deals with the techniques used to enhance digital Signals so that they are less vulnerable to such Channel impairments as noise, fading and jaming.

Channel Coding is partitioned into two blocks, waveform Coding and Structured Sequences.

Waveform Coding involves the use of new waveform, yieldings improved detection performance over that of the

Camlin Page
Date / /

original waveforms.

Structured sequences involve the use of redundant bits to determine whether or not an error has occured due to noise on the channel.

One of these technique known as automatic repeat request (ARQ).

Multiplexing and Multiple Access —

The two terms mean very similar things. Both involve the idea of resource sharing.

The main difference bet^n. the two is that multiplexing takes place locally (e.g. on a printed circuit board, within an assembly, or even within a facility). And multiple access takes place remotely (e.g. multiple users need to share the use of satellite transponders).

Multiplexing involves an algorithm that is known as priori; usually, it is hardwired into the system.

Multiple access Techniques — Freq^y division, Code Division & time division.

Spreading —

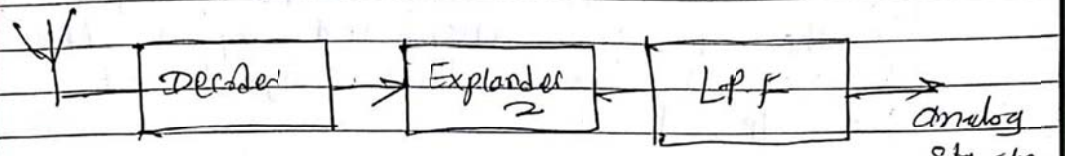
Transformation originally developed for military Comm^n. Called Spreading.

The Spreading is accomplished by means of a spreading signal, often called a code signal, which is independent of the data.

The spread spectrum technique that

Draw and Explain the complete block diagram of PCM Transmitter and receiver

Block diagram of PCM Receiver —



i) Antenna — It collects all the signals and converts it into electrical signal.

ii) Decoder — It's function exactly complements with respect to encoder. That is conversion of the binary signal into decimal or digital into it's equivalent analog signal.

iii) Expander — The o/p from decoder is given to the expander ckt.
Here the Speech Signal is large, which then requires a large number of quantizing level. Therefore amplitude Compressor ckt. are employed in the transmitter to reduce large peak in the signal & this reduce the number of quantizing levels for a accuracy and also reduces the channel B.W.
When we used the same at the transmitted @ simultaneously the expander ckt. is used at the receiver.
The function of it is to bring the Compressed signal back to its original form & convert into it's equivalent analog signal.

iv) L.P.F —

Higher freq^n Component present in the o/p are attenuated by a LPF & we get the actual signal at the o/p of it.

Explain Speech Synthesis using LPC.Aug 2017, May 2011,06

Book - A B Carlson

LPC Speech Synthesis —

Linear predictive Coding (LPC) is a new and radically different approach to digital representation of analog signals.

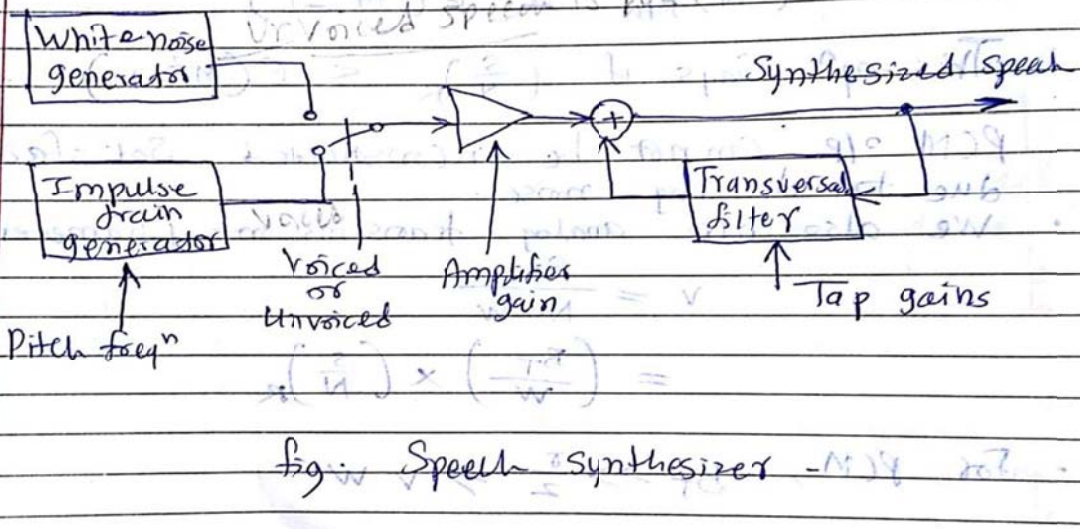


fig: Speech Synthesizer

Above dig. shows a speech synthesizer consisting of two i/p generators, a variable gain ampl., and a transversal filter in a feedback loop. The amplifier gain and filter tap gains are adjusted to model the acoustical properties of the vocal tract. Unvoiced speech (such as hissing sound) is produced by connecting the white noise gen. & voiced speech is produced by connecting the impulse-train gen. set at the appropriate pitch freq.
If the filter has about 10 tap gains, and add parameter values are updated every 10 to 25 ms, the synthesized speech is quite intelligible although it may sound rather artificial. Some talking toys and recorded message system generate speech sounds by the synthesis method, drawing upon parameter values stored in a digital memory.

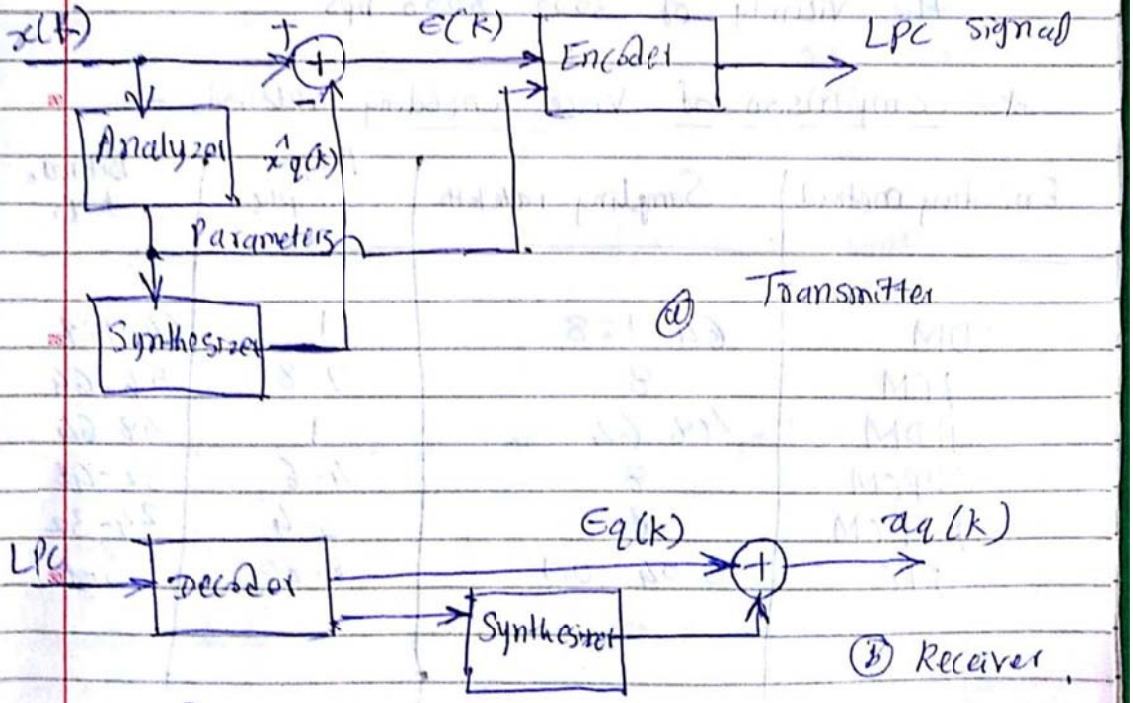
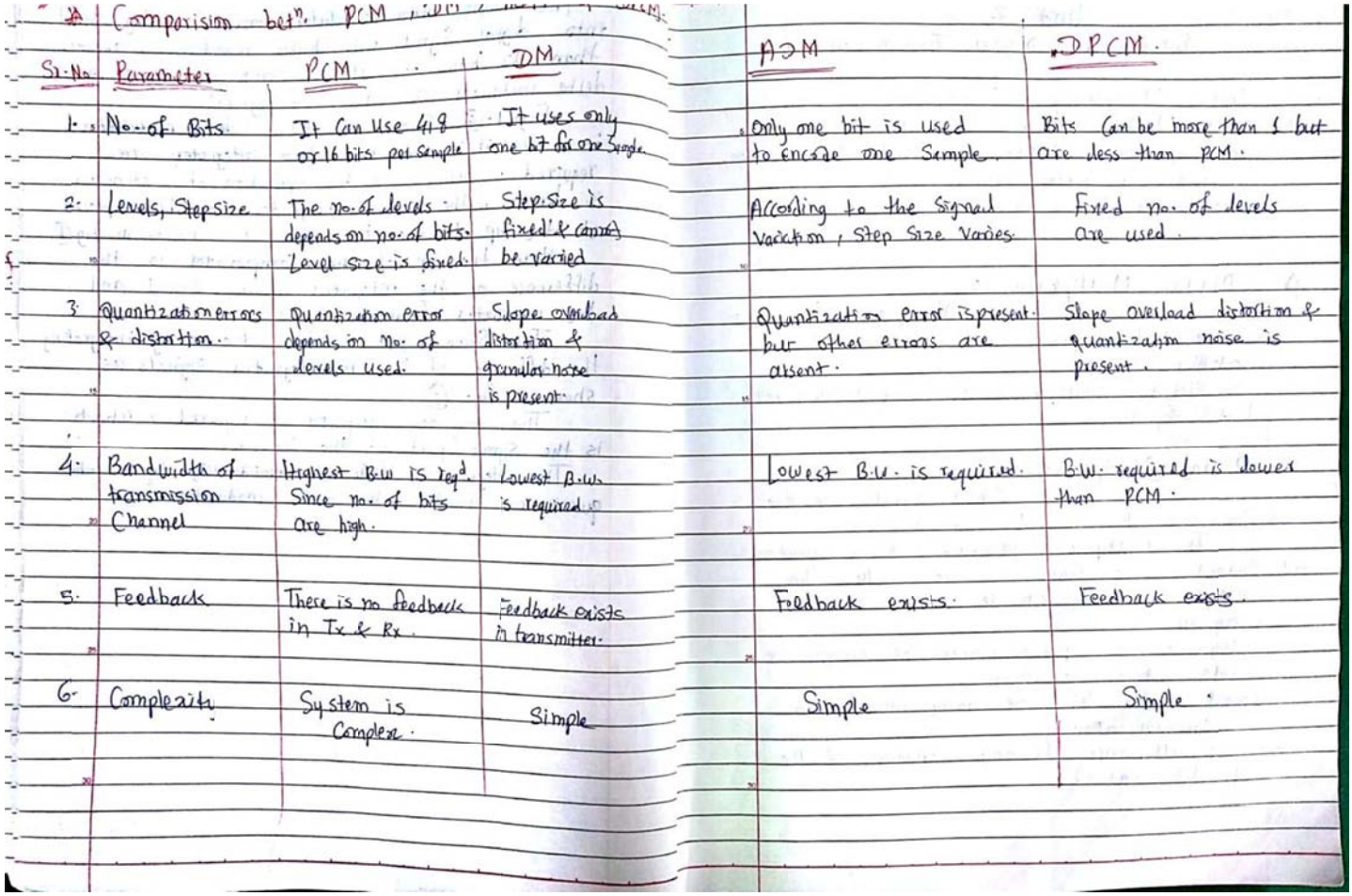


fig- LPC transmission system.

Compare PCM DPCM Delta modulation on the basis of sampling frequency ,bit rate and bandwidth requirement Dec 2013



Comparision bet^n. PCM, DM, ADM, DPCM.

Sl. No.	Parameter	PCM	DM	ADM	DPCM
1.	No. of Bits	It can use 4 8 or 16 bits per sample	It uses only one bit for one Sample.	Only one bit is used to encode one Sample.	Bits can be more than 1 but are less than PCM.
2.	Levels, Step size	The no. of levels depends on no. of bits. Level size is fixed.	Step size is fixed & cannot be varied	According to the Signal variation, Step size varies.	Fixed no. of levels are used.
3.	Quantization errors & distortion.	Quantization error depends on no. of levels used.	Slope overload distortion & granular noise is present.	Quantization error is present but other errors are absent.	Slope overload distortion & quantization noise is present.
4.	Bandwidth of transmission Channel	Highest B.W is req^d. Since no. of bits are high.	Lowest B.W. is required.	Lowest B.W. is required.	B.W. required is lower than PCM.
5.	Feedback	There is no feedback in Tx & Rx.	Feedback exists in transmitter.	Feedback exists.	Feedback exists.
6.	Complexity	System is Complex.	Simple	Simple	Simple.

CRITERIA - 7: INSTITUTIONAL VALUES AND BESTPRACTICES

1. 3 Institutional Distinctiveness

5. International Collaboration and MoU

	Number of functional MoUs with national and international institutions, universities, industries, corporate houses etc. during the year					
Sr. no.	**Organization with which MoU is signed**	**Name of the institution/ industry/ corporate house**	**Year of signing MoU**	**Duration**	**List the actual activities under each MOU year wise**	**Number of students/teachers participated under MoUs**
1	**Hitesh Lahoti & Associates, Pune**		**2020**	**3 years**		
2	**IREF**		**2021**	**2 years**	**Webinar on "RERA"**	**115**
3	**IREF**		**2021**	**2 years**	**Webinar on "How Civil Engineers can build their career in Real Estate, Construction and Finance"**	**57**
4	**iNODE Softeare Co.**		**2021**	**2 years**	**Webinar on "Opportunities for Civil Engineers in Water Sector under Jal Jeevan Mission"**	
5	SECUREPOINT TECHNOLOGIES PRIVATE LIMITED		2021	**3 years**	Webinar on "Cyber Security"	43
6	Mile2 Authorized Training center	Arika Consultoncy Service	2021	1 year	Webinar on "Cyber Security"	
7	StackZeal Private Limited		2021	**3 years**	Webinar on "Opportunities for Internship to	56

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					students in the College."	
8	Span Control		2020	3 years	Webinar on " Innovation on Startups"	60
9	Abhinav IT solution Pvt. Ltd		2021	3 years	Webinar on " Introduction to Cloud Application"	75

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CRITERIA - 7: INSTITUTIONAL VALUES AND BEST PRACTICES

7. 3 Institutional Distinctiveness

6. One Publication per Faculty

Objective:

- To share information among the faculty members of various disciplines.
- For the social responsibility towards the communities it serves, teachers need to acquire the personal and professional development to meet the goals, vision and mission of the institution.
- Ability to make them understand the unknown from known concepts.
- To develop straddling skills, such as integrative thinking, combining knowledge of different disciplines and to cope with complexity.
- Depth learning of new concepts and understanding of varied topics.
- Through inter-department lectures we make able to enhance the inter-disciplinary learning by the faculty members as well as the students.

The Context:

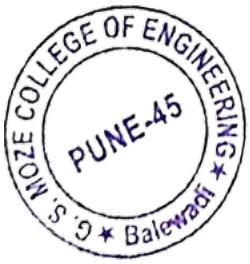
- This activity gives the enhancing platform for all the faculty members of all the departments, exchange the knowledge and enhance the skills with other group members.
- Faculty members share the knowledge on inter-disciplinary fields and the faculty members participate in this programme.
- All the shared information as well as faculty attendance maintained in the college along with details of publication details of faculty.

The Practice:

- A document of the programme is maintained.

Evidence of Success:

- Outcome of these practices enables the faculty members to inspire the students to take initiative in building new ideas and implement the same in real time projects.



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Challenging Issues:

- Resources are the primary demanding situations for participation in the competition.
- Management support: Without Management's involvement and support, the quality practices cannot be implemented.
- For achievement of such practices require mindset and willingness at the a part of the facilitator without which its miles tough to encourage college students that's the target market of the Institute.
- Degree of motivation required in the minds of the students can result in success of such practices.

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Faculty conference attended and paper published details
2020-2021

No	Department	Name of the Faculty	Date	Papers Published / Conference attended / Reviewer	Journal / Conference details
1	Comp	Prof. Pallavi Patil	Dec 2020	A Modified Neural Network Architecture for Message Type Recognition in VANET using an Emergency Message Transmission Protocol	International Journal of Management, Technology And Engineering - UGC Approved Joournal, Volume X, Issue XII, DECEMBER/2020, ISSN NO : 2249-7455.
2	Comp	Prof.Amruta Aphale	Aug 2020	Predict Loan Approval in Banking System Machine Learning Approach for Cooperative Banks Loan Approval	International Journal of Engineering Research and Technology, IJERTV9IS080309,VOLUME 09, ISSUE 08 (AUGUST 2020),ISSN NO:2278-0181
3	First Year	Prof. Prathamesh S. Gorane	Nov 2020	Paper Published - Analysis and Optimization of a Connecting Rod"	(IJSRD) International Journal for Scientific Research & Development, Vol. 8, Issue 9, 2020 | ISSN (online): 2321-0613
			Nov 2020	Paper Published - Finite Element Analysis of Optimized Connecting Rod"	(IJSRD) International Journal for Scientific Research & Development, Vol. 8, Issue 9, 2020 | ISSN (online): 2321-0613
			14-Mar-20	Conference attended	(AMIIUAC - 2020)-Advances In Mechatronics And Its Interdisciplinary Impact And Ultramodern Applications In Context Of 21st Century
			30-Aug-20	Conference attended	(ICRDIRT-2020)-International Conference on Research Outlook, Innovations and Research Trends
			23-Oct-20	Conference attended	(IOMRC-2020)-4th International Online Multidisciplinary Research Conference
			1-Nov-20	Conference attended	(NCRASETM)-National Conference on Recent Advances in Science, Engineering, Technology and Management

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4	Mechanical	Prof. Roundal Vijay Baburao	1-Nov-20	Paper Published - Analysis and Optimization of a Connecting Rod"	(IJSRD) International Journal for Scientific Research & Development, Vol. 8, Issue 9, 2020 | ISSN (online): 2321-0613
			1-Nov-20	Paper Published - Finite Element Analysis of Optimized Connecting Rod"	(IJSRD) International Journal for Scientific Research & Development, Vol. 8, Issue 9, 2020 | ISSN (online): 2321-0613
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			23-Oct-20	Conference attended	(IOMRC-2020)-4th International Online Multidisciplinary Research Conference
			1-Nov-20	Conference attended	(NCRASETM)-National Conference on Recent Advances in Science, Engineering, Technology and Management
5	First Year	Prof. Neelam Pareek	30-12-2020	Conference attended	National Conference on Digital Transformation During Pendemic WIRC OF ICAI
6			June 2020	Academic Journal publication	"Design and fabrication of Portable peanut peeling machine" in the Journal of Solid State Technology Vol.63 No.1(2020). SCOPUS Listed Journal)

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