

Winter 2019-20

NEWSLETTER
Department
Of
Civil Engineering



S.V.S.M.D's

Kai. Kalyanrao (Balasaheb) Ingale
Polytechnic, Akkalkot



Civil Engineering Department

Welcome



It gives me great pleasure to give my best wishes to Newsletter of department for the academic year 2019-20. The students and faculties of department are always proactive in taking initiatives in technical, cultural and social events, industrial visits and expert lectures etc. I hope this newsletter will serve the purpose of reflecting all activities of department and it will inspire others to do their best.

I wish good luck to the entire team and look forward for your kind patronage to newsletter.

Mr. D.A. Janngonda
Head of Department

Vision

- To strive for making Vibrant Civil Engineers for rural community development.

Mission

M1 -To mould Responsible Engineers with Good Discipline Knowledge.

M2- To transform the Rural Potential into Technical Excellence with The help of Knowledge & Technology.

M3-To motivate the Students for Becoming Entrepreneur.

Program Educational Objectives (PEOs)

1. To equip the students with sufficient knowledge to become leaders in industry.
2. Ability to tackle the problems individually and as a team by communicating effectively in the professional world.
3. To pursue higher education.

Program Outcomes (POs)

PO1	Basic and discipline specific knowledge: Apply the knowledge of basic mathematics, science and engineering fundamental and engineering specialization to solve the engineering problems
PO2	Problem analysis: Identify and analyze well-defined engineering problems using codified standard methods.
PO3	Design / Development of Solution: Design solutions for well-defined technical problems and assist with the design of system components or process to meet specified needs.
PO4	Engineering Tools, Experimentation and Testing: Apply the modern engineering tools and appropriate technique to conduct standard tests and measurements.
PO5	Engineering Practices for Society, Sustainability and Environment: Apply appropriate technology in context of society, sustainability, environment and ethical practices.
PO6	Project Management: Use engineering management principals individually, as a team member or a leader to manage projects and effectively communicate about well-defined engineering activities.
PO7	Life-long learning: Ability to analyze individual needs and engage in updating in context of technological changes.

Expert Talks

1. **“Emerging Trends in civil Engg”** by **Mr. Bugade sir and Chavan sir** from VVP Engineering & Technology college for third year students..
2. **Mr. Khambad C.G.** gives a expert lecture on **“Personality Development”** for third year students.
3. **Mr. Ligade sir** from A.G. Patil Engineering & Technology College gives an expert lecture on **“construction management”**
4. **“Concrete Structure Guest Lecture”** by **Mr. R.G. Maske**, Orchid College of Engineering Solapur.
5. **“Introduction to Steel Structure by Limit State Method”** by Prof. Maske R.G. (N.K. Orchid college of Engg., Solapur).
6. **“Recent Trends in Civil Engineering”** by Prof. Chavan R.S. & Prof. Bugade S.R. (VVP Engg. College, Solapur)
7. **“Entrepreneurship Development & Construction Management”** by Mr. Khambad C.G. (Site Engineer-Sharada Construction, Pune)
8. **“Project Management”** by Prof. Ligade A.S. (A.G. Patil Institute of Engg.)
9. **“Interview Techniques & Industry Culture”** by Prof. Chipade A.V. (BMIT, Solapur)



Site Visits

All Civil Engineering students visited the following Site Visits..

1. RMC Plant, GRIL InfraprojectsPvt ltd, valsang, Akkalkot.
2. Construction of Rigid Pavement, Valsang, Akkalkot.
3. Water Treatment plant, Pakni, Solapur.
4. Visit to Construction site, Samarth Nagar, Akkalkot.
5. Visit to Working of Kurnoor DamIrrigation Department ,Kurnoor Dam



RMC Plant, GRIL InfraprojectsPvt ltd, Valsang, Akkalkot.



Construction of Rigid Pavement



Water Treatment plant, Pakni, Solapur

Co-Curricular activity:

Sr. No	Type of activity & Details (Paper presentation/Project /Quiz/Etc.)	Date	Name of participating student	Organizing Body & Organizing Institute.	Awards (Winner/Participation)	Level (State /National /etc.)
1	Poster Presentation	14/09/2019	1.Solapure .V.S 2.Gaikwad K B	Department	Winner	Department
2	PowerPoint Presentation	15/02/2019	TYCE, SYCE	Department	Participation	Department
3	Quiz competition	14/02/2020	TYCE, SYCE	Department	Participation	Department
4	Build Up	11/03/2020	TYCE	NKOCOE	Participation	National
5	Cube Crush	12/03/2020	TYCE	Sinhgad college	Participation	National
6	Brain power	15/02/2020	TYCE ,EJ ,ME CO	Department	Participation	Department
7	PROJECT GALA	11/03/2020	BHIMSHA .H. MANJULKAR	Department	FIRST PRIZE	Department
8	PROJECTIA	12/03/2020	BHIMSHA .H. MANJULKAR	Department	FIRST PRIZE	Department
9	ENGINEERING E QUIZ	23/05/2020	SANDEEP T PAWAR	MARATWADA INST.OF TECHNOLOGY	DISTINCTION	INTERCOLLEGIATE
10	ENGINEERING E QUIZ	01//06/2020	SANDEEP T PAWAR	TERNA PUBLIC COLLEGE	Participation	INTERCOLLEGIATE
11	ENGINEERING E QUIZ	23/05/2020	SANDEEP T PAWAR	TSSM'S BHIVARABAI COLLEGE OF ENGG.PUNE	RANK 100%	INTERCOLLEGIATE

Extra-Curricular activity:

Sr. No	Type of activity & Details (SPORTS/DRAMA /SOCIAL/NSS Etc.)	Date	Name of participating student	Organizing Body & Organizing Institute.	Awards (Winner/Participation)	Level (State /National /etc.)
1	SPORTS (CARROM)	28/12/2019	Gaikwad K.B. Birajdar.A.S	Institute.	Winner Runner up	Institute
2	SPORTS (Chess)	28/12/2019	Miss.Bangi.A .K	Institute.	Winner	Institute
3	SPORTS (Khoko)	28/12/2019	TYCE	Institute.	RUNNER UP	Institute
4	SPORTS (Throw ball)	28/12/2019	FYCE	Institute.	RUNNER UP	Institute
5	CHESS BOYS	28/12/2019	CHAVAN S.K.	Institute.	RUNNER UP	Institute
6	CRICKET	28/12/2019	FYCE/TYCE	Institute.	WINNER	Institute
7	KABADDI	11/01/2020	FYCE/TYCE	IDESSA	RUNNER UP	ZONAL
8	BASKET BALL	06/01/2020	FYCE	IDESSA	RUNNER UP	ZONAL
9	VOLLEY BALL	06/01/2020	FYCE	IDESSA	PARTICIPATION	ZONAL
10	SWACHH BHARAT(NSS)	25/01/2020	CIVIL DEPT	INSTITUTE	PARTICIPATION	INSTITUTE
11	TREE PLANTATION	05/10/2019	CIVIL DEPT	INSTITUTE	PARTICIPATION	INSTITUTE
12	SPORTS QUIZ	25/05/2020	SANDEEP T PAWAR	THAKUR POLYTECHNIC	RANK	INTERCOLLEGIATE

FDP/ STTP ORGANIZED / CONDUCTED





Sr. No.	FDP/ STTP ORGANIZED / CONDUCTED	FROM	TO	No. of Days
1	FDP on NBA SARPreparation	17/08/2019	18/08/2019	02
2	FDP on Recent Advancement in CIVIL Engineering	21/02/2020	22/02/2020	02

Faculty Achievements:





Workshops/Training attended

1. Mr. Gram N.A. attended five days training program on **“Overview of NBA NORMS & Its Preparation For Accreditation.”**
2. Mr.Ghatge S.A. attended five days training program on **“NBA Norms & Preparation for Accreditation”** 'sponsored by MSBTE conducted at A.G.Patil Polytechnic Institute, Solapur.
3. Mr.Samane K.R attended five days training program on **“NBA Norms & Preparation for Accreditation”** 'sponsored by MSBTE conducted at A.G.Patil Polytechnic Institute, Solapur.
4. Mr.Jangonda D.A attended one day workshop **“Orientation I-Scheme Programme”**organized by SSWP, Solapur.
5. Mr.Jangonda D.A as a Jury Member attended one day**“MSBTE Quiz Competition”** organized by G.P Solapur.




Academic Performance:(Including ODD & EVEN SEM)

THIRD YEAR				
COURSE	NAME OF STUDENT	Photo	PERCENTAGE	RANK
1	BANGI ARIFA KHALIL AHMED		93.79	1
2	MANJULKAR BHIMASHA HULLEPPA		93.37	2
3	GHODAKE BHAGESH VITTHAL		86.11	3
	HIPPARGIKAR MUDASSAR MAHIBUB		86.21	

SECOND YEAR

COURSE	NAME OF STUDENT	Photo	PERCENTAGE	RANK
1	BANGI SAIDA KHALIL AHMAD		89.5	1
2	KEKAN DASHARATH BUDHAPPA		87.38	2
3	LUKDE LADAGORI AMIRHAMZA		84.38	3
	PAWAR SANDEEP TUKARAM		84.5	

FIRST YEAR

COURSE	NAME OF STUDENT	Photo	PERCENTAGE	RANK
1	BANGI ARFAT MUSTAFA		88.66	1
2	ITAKAR MAHESH DEVENDRA		87.87	2
3	CHAVAN AISHWARYA ROHIDAS		87.87	3

PLACEMENTS FROM OUR DEPARTMENT:

1	DANURE MAHESH SHIVASHARAN	1612050040	PRIVATE SECTOR
2	GAIKWAD RAJSHEKHAR AMOGSIDH	1612050047	PRIVATE SECTOR
3	KAMBALE AKASH PARMESHWAR	1712050124	PRIVATE SECTOR
4	BELLE SOMNATH DEVENDRA	1712050132	PRIVATE SECTOR
5	SHINDE PRAJAKTA DEVIDAS	1612050061	Sai Shraddha Enterprizes,Pune

PAPERS PUBLISHED:

Electricity in Rural Area for Domestic Purpose with the help of solar power point

Submitted by;

1. PatilKetanKrushnatrao (Enrollment no. 1712050004)
2. KhavaleSneha Santosh (Enrollment no. 1712050011)
3. GhodakeBhageshVitthal (Enrollment no. 1712050021)
4. SinnurSiddharamGangappa (Enrollment no. 1712050027)
5. GavandiSanjaykumarBasavaraj (Enrollment no. 1712050029)

Under the guidance of;

Lect. Mr. Jangonda D.A.

[Lecturer in Civil Engg. Department

S.V.S.M.D's K.K.I. Polytechnic, Akkalkot]

Department of Civil Engineering

ABSTRACT

Solar energy is defined as the sun's radiation that reaches the earth. It is the most readily available source of energy.

The sun is the earth's power station and the source of all energy on our planet. Solar energy is the energy force that

sustains life on Earth for all plants, animals and people. It provides a compelling solution for all societies to meet

their needs for clean, abundant sources of energy in the future. India is densely populated and has high solar

insolation, an ideal combination for using solar power in India. Solar energy is widely used in India. This paper

presents the solar energy current production in India from different states and needs of solar energy for rural area

development in India. The solar energy could supply all the present and future energy needs of the world. The most

explored renewable energy technologies for power generation in India, namely, Solar pond, and Solar Photovoltaic

systems need more sophistication for long-term benefits. This paper also summarizes the direct solar usage systems

like Water heating system, Solar Drying, Solar Cooking and Solar Distillation. Solar energy can be tapped directly

(e.g. PV); indirectly as with wind, biomass and hydropower; or as fossil Biomass fuels such as Coal and Natural Gas.

A work on the review of integration of solar power into electricity grids is presented. Integration technology has become important due to the world's energy requirements which imposed significant need for different methods by which energy can be produced or integrated, in addition to the fact that integration of solar energy into non-renewable sources is important as it reduces the rates of consuming of non-renewable resources hence reduce dependence of fossil fuels. Photovoltaic or PV system are leading this revolution by utilizing the available power of the sun and transforming it from DC to AC power. Integrating renewable energy of this source into grids has become prominent amongst researchers and scientists due to the current energy demand together with depletion of fossil-fuel reserves and environmental impacts. In this review, current solar-grid integration technologies are identified, benefits of solar-grid integration are highlighted, solar

system characteristics for integration and the effects and challenges of integration are discussed. Integration issues and compatibility of both systems (i.e. solar and grid generations) are addressed from both the solar system side and from utility side. This review will help in the implementation of solar-grid integration in new projects without repeating obvious challenges encountered in existing projects, and provide data for researchers and scientists on the viability of solar-grid integration.

Design of Slab Shear Wall and Domes of Elevated Storage Reservoir

Submitted by;

1. GuravKamalakarVishvanath (Enrollment no.1412050202)
2. KshirsagarAkashGovind (Enrollment no.1312050026)
3. KatareShivrajDayanand (Enrollment no.1212050004)
4. Jamadar LaxmikantVitthal (Enrollment no.1312050015)
5. GhanteBabuSidhappa (Enrollment no.1312050009)

Under the guidance of;

Lect. Mr. Gram N.A.

[Lecturer in Civil Engg. Department

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Department of Civil Engineering

ABSTRACT

While designing a reinforced concrete structure, the aim is to provide a safe, serviceable, durable, economical and aesthetically pleasing structure. For the structure to be safe, it must be able to resist the worst loading conditions. Under normal working conditions, the deformation and cracking must not be excessive for the structure to remain serviceable, durable and aesthetically pleasing during the expected design life. Furthermore, the structure should be economical with regard to both construction and maintenance cost. During designing, a sensible designer ought to bear in mind that structure should be a balancing of economy,

aesthetic and stability. One can always design a massive structure, which has more than adequate stability strength and serviceability, but the ensuring cost of the structure may be exorbitant and the end product far from aesthetics. In the design of structures, the aim is to design the structure in such a way that it fulfils its intended purpose during its intended life time and be adequately safe in terms of strength, stability and structural rigidity and have adequate serviceability in terms of stiffness, durability etc. Safety requires the possibility of collapse of the structure (partial or total) is acceptably low not under normal expected loads (service loads), but also under less frequent loads (such as due to earthquakes or extreme winds) and accidental loads (blasts, impacts, etc.). Other two important considerations that a sensible designer ought to bear in mind are that the structure should be economical with regard to both construction and maintenance cost and aesthetically pleasing during the expected design life.

A water tank is used to store water for daily requirements like drinking, washing etc. An elevated water tank is a large water storage container constructed for the purpose of holding water supply at certain height to provide sufficient pressure in the water distribution system. Liquid storage tanks are used extensively used by municipalities and industries for storing water, inflammable liquids and other chemicals. These tanks have various types of support structures like RC braced frame, steel frame, RC shaft, and even masonry pedestal. The most commonly used staging in practice is the frame type. The main components of this type of staging are columns and braces. The staging acts like a bridge between the overhead container and foundation to transfer loads acting on the tank. Thus Water tanks are very important for public utility and for industrial structure and also to withstand more design forces. The frame support of the ELSR should have adequate strength to resist axial loads, moment and shear force due to lateral loads. These forces depend upon total weight of the structure, which varies with the amount of water present in the tank container.

Hospital Waste Disposal

Submitted by;

1. NimbalkarGirajaramSwamirao (Enrollment no.1312050007)
2. ChavanRdhulTulashiram (Enrollment no.1412050209)
3. PedasangiSachinChandrakant (Enrollment no.1312050029)
4. NadageriShrishailGurunath (Enrollment no.1212050020)
5. DhuteShivanandJagannath (Enrollment no. 1412050206)
6. Nadaf HajimlangVajeer (Enrollment no.1412050198)

Under the guidance of;

Lect. Mr. Ghatage S.A.

[Lecturer in Civil Engg. Department

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Department of CIVIL Engineering

ABSTRACT

Hospital wastes pose a significant impact on health and environment. From this study it can be said that there is an urgent need for raising awareness and education on medical waste issues. Proper waste management strategy is needed to ensure health and environmental safety. For further study, it is needed to collect more information on impacts, disposal and management to draw clear conclusion.

Biomedical waste management is one of the biggest challenges of the present day times because it has a direct impact on the health of human beings. Since it is

hazardous in nature its safe and proper disposal is extremely important. For proper disposal management of biomedical waste the Ministry of Environment and Forests has published the Bio-Medical Waste Rules, 1998. This review explains the hospital waste management and the environmental problem in India. This study also focused on the problems associated with Biomedical waste. In the past, medical waste was often mixed with municipal solid waste and disposed in nearby landfills. In recent years, many efforts have been made by environmental regulatory agencies to better manage the biomedical waste. Need to collect information and examples from developed country or the country, which has sound medical waste management system. Find alternatives and appropriate technologies for developing countries. Need extensive study on this medical waste and its management aspects as well. All over the world, there is an exodus of people from villages to cities, partly for education and employment and partly because agriculture has become less and less profitable. It is estimated that 65% of the world's population will live in cities by 2030. The infrastructure required for this lop-sided growth of the cities is resulting in mountains of garbage collecting in the unplanned extensions in larger cities, because of poor conservancy services and lack of civic amenities. It is estimated that the domestic garbage produced per day in Mumbai is of size of an eight stored building complex. The quality of air in the surroundings of the cities is so poor that it is estimated about two million children under five die each year from respiratory infections. Falling in line with the general situation, we find certain public places like hospitals, vegetable, fish and other market places, Railway stations, Bus stands, Parks and Cinema halls are maintained unhygienically contributing to the spread of infectious diseases. It is wonder how the elite like doctors and higher officials who work in such public places and spend major part of their day time in these places are callous to the environment. Particularly, hospitals generate an enormous amount of dangerous waste. The amount of solid waste generated by hospitals has been increasing rapidly in developing countries like India and its management can no longer be ignored. Increasing concern for community health standards and pollution control requirements demand that the huge mass of infectious waste be rendered as harmless as possible before it is disposed. Against this background, an attempt is made in this paper to discuss the problem of disposal of wastes in Indian hospitals and various legislations relating to environmental protection in general and Bio-medical waste (Management and Handling) rules, 1998 (amended in 2000) based

on the environmental (protection) Act, 1986 in particular. This Paper also suggests a few measures for the effective management of waste disposal. The objectives of this study were: (i) to assess the waste handling and treatment system of hospital bio-medical solid waste and its mandatory compliance with Regulatory Notifications for Bio-medical Waste (Management and Handling) Rules, 1998, under the Environment (Protection) Act 1986, Ministry of Environment and Forestry, Govt. of India, at the chosen KLE Society's J. N. Hospital and Medical Research Center, Belgaum, India and (ii) to quantitatively estimate the amount of non-infectious and infectious waste generated in different wards/sections

Rural Development by water conservation

Submitted by:

1. Manjulakar B.H. (Enrollment no. 1712050020)
2. Bansode I.B. (Enrollment no.1812050040)
3. Budhale A.S. (Enrollment no.1812050043)
4. Hadare S.S. (Enrollment no. 1812050044)

Under the guidance of;

Lect. S.A. Ghatge

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Department of Civil Engineering

ABSTRACT

The water conservation measure has been suggested on the Piyali River basin area in Kultali Block of South 24th Parganas, West Bengal, India for rainwater harvesting based on field survey. In this study, the Basin of Piyali River, an estuarine river with regular tidal influx, with special emphasis on Kultali Block has been chosen for utilizing the water of the Piyali River during dry months and augmenting water supply through rainwater harvesting in the Kultali Block mouza-wise. Especially during flash floods the entire catchments used to be flooded. To eradicate the problem, in early post-independence time a master plan was prepared and implemented by the Irrigation Department to restrict the entry of tidal ingress by means of a major sluice gate and construction of similar sluices in each

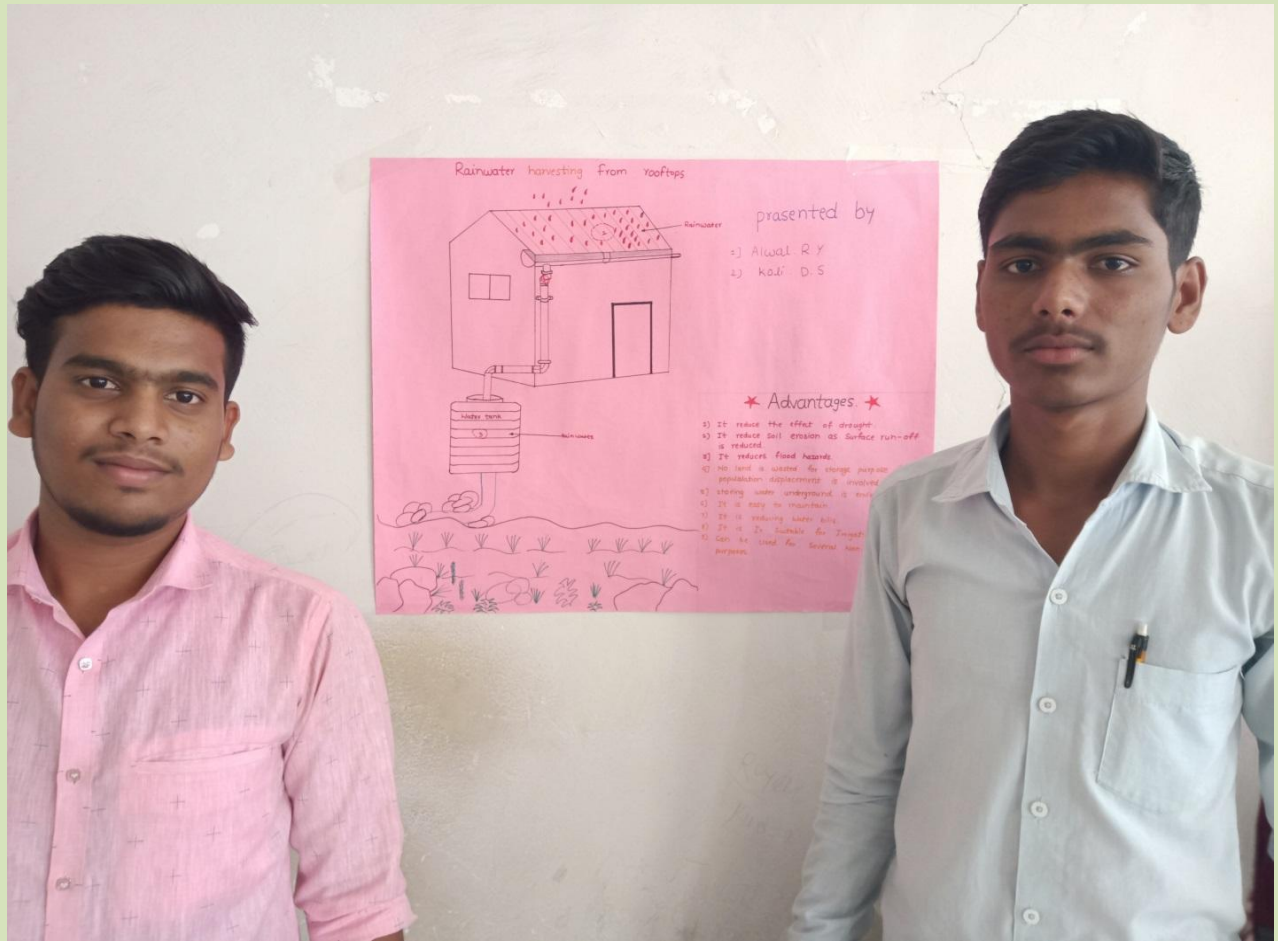
tributaries debouching to the Piyali River, to check the flood problem in the area as also to conserve rainwater for use in the lean periods. Unfortunately after thirty years of installation of the closure, the Piyali River remains saline during dry months thereby defeating the very important purpose of utilizing huge quantum of water for irrigation during dry months of the year. Consequently the present study suggests some measure to eradicate the salinity problem in the river. An extensive plan has been made on the basis of study for augmenting water supply through rain water harvesting with the help of ponds network. The measure needs to be implemented for irrigation facilities for multi cropping in the area of Kultali Block to make the water of Piyali River fresh. Thus the main objective is to provide a plan for augmenting irrigation water for the development of command area by considering either of individual land or community land block wise through rainwater harvesting structure ponds and also to suggest crop pattern and crop rotation according to water availability, quality and soil condition. The study attempts to delineate not only for enhancement of their economic return through pisciculture and improved cropping intensity during dry season for sustaining their livelihood but also reducing the salinity level of the Piyali River by selecting the location of the dyke in Piyali River for utilizing huge quantity of water for multi-cropping during lean period..

DEPARTMENTAL EVENTS:

Sr. No.	NAME OF EVENT	DATE ORGANIZED
1	Paper Presentation	15/02/2020
2	Poster Presentation	15/09/2020



POSTER PRESENTATION



POSTER PRESENTATION



POSTER PRESENTATION



S.V.S.M.D's

**Kai. Kalyanrao (Balasaheb) Ingale Polytechnic,
Akkalkot**

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Approved by: All India Council for Technical Education (AICTE), New Delhi

Recognized by: Government of Maharashtra

Approved by: Directorate of Technical Education (DTE), Mumbai

**Affiliated to: Maharashtra State Board of Technical Education (MSBTE),
Mumbai**

COURSES OFFERED IN DIPLOMA ENGINEERING

Discipline	Intake Capacity	Duration of Course
Civil Engineering	60	3 Years
Electronics and Telecom. Engineering	30	3 Years
Mechanical Engineering	60	3 Years
Computer Engineering	30	3 Years
Total Intake	180	