

DIVINE INSTITUTE OF ENGINEERING & TECHNOLOGY
PODA ASTLA, BARIPADA, MAYURBHANJ, ODISHA-757049

3rd Semester (Civil Engineering)

- **Structural Mechanics**
- **Geotechnical Engineering**
- **Building materials & Construction Technology**
- **Estimation & Cost Evaluation**
- **Environmental studies.**

Structural Mechanics		
SI No	Description	Link
1	Review Of Basics Concepts	https://youtu.be/J6seg2NGtM0 , https://youtu.be/IG1bCQx21As
2	Simple And Complex Stress, Strain	https://youtu.be/5GgMqyTcVYg , https://youtu.be/utXxZF5Em3Y , https://youtu.be/KZfQwjWc0fw
3	Stresses in Beams	https://youtu.be/4TJ9DHueyxU , https://youtu.be/H3wEPIkfM5w
4	Columns and Struts	https://youtu.be/hwpGAxa8UoI , https://youtu.be/V8NeuOqYCyl
5	Shear Force and Bending Moment	https://youtu.be/UahfUvcS24o , https://youtu.be/npMF-CvJ1rU , https://youtu.be/jc7isU5IyyU , https://youtu.be/A3nlRKWu7sk
6	Slope and Deflection	https://youtu.be/YO6VbXwUqjY , https://youtu.be/K8yvy3cB9aM
7	Indeterminate Beams	https://youtu.be/eVEN8etXkYc , https://youtu.be/-dhVofRCoPM
8	Trusses and Beams	https://youtu.be/Hn_iozUo9m4

Geotechnical Engineering		
SI No	Description	Link
1	Introduction	https://youtu.be/zQ5_Y7W08do
2	Preliminary definitions and relationship	https://youtu.be/DNIG6rRIITc
3	Index Properties of Soils	https://youtu.be/aITseVYIU4g
4	Classification of soils	https://youtu.be/UNgzyAt93LU
5	Permeability and seepage	https://youtu.be/E33XkslgN7k
6	Compaction and Consolidation	https://youtu.be/8ypdA8NB9d4
7	Shear Strength	https://youtu.be/u7_Gm0YqHaY
8	Earth Pressure on Retaining Structures	https://youtu.be/zRa8LCpBnec

Building Materials and Construction Technology		
SI#	Description	Link
1	Stone	https://youtu.be/POz6dhkM5yl
2	Bricks	https://youtu.be/m4GUpwNnc_0
3	Cement, Mortar and Concrete	https://youtu.be/2glhNc_AxJ8
4	Other Construction Materials	https://youtu.be/YXEcHjo9o0Q

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5	Surface Protective Materials	https://youtu.be/nByupAk1yXA
6	Introduction	https://youtu.be/awqLZsxhR7E
7	Foundations	https://youtu.be/_hqSWYxPQq0
8	Walls & Masonary Works	https://youtu.be/iyLCRO5MOWk
9	Doors, Windows and Lintels	https://youtu.be/yvIDMCT75IM
10	Floors, Roofs and Stairs	https://youtu.be/ATGEhLFBtk4
11	Protective , Decorative Finishes and Termite Proofing	https://youtu.be/8rwk3paHOO0
12	Green Buildings, Energy Management and energy Audit of Buildings & Project	https://youtu.be/QohffVlj-TQ https://youtu.be/_T1Au_P5bnQ

Estimation and Cost Evaluation - 1

Sl#	Description	Link
1	Introduction	https://youtu.be/_Im-UOtegHo
2	Qunatity Estimate of Building	https://youtu.be/dYxNIgUSfcl
3	Analysis of Rates and Valuation	https://youtu.be/dArX7csskD0
4	Administrative set up Engineering Organisations	https://youtu.be/70wZAaxm4CM

Environmental studies

Sl#	Description	Link
1	The Multidisciplinary nature of environmental studies	https://www.youtube.com/watch?v=pKT8ci7pbK4
2	Natural Resources	https://www.youtube.com/watch?v=rLKMERwFQz0
3	Biodiversity and it's Conservation	https://www.youtube.com/watch?v=Sat94VXb2O4
4	Environmental Pollution	https://www.youtube.com/watch?v=oxtMFmDTv3Q
5	Social issues and the Environment	https://www.youtube.com/watch?v=WxFSBZYPYzE
6	Human population and the environment	https://www.youtube.com/watch?v=Ug3cHzMmi-l

4th Semester (Civil Engineering)

- **Structural Design-I**
- **Hydraulic and Irrigation Engineering**
- **Land Surveying-I**
- **Highway Engineering**

Structural Design -I

SI #	Description	Link
1	Working Stress method (WSM)	https://youtu.be/DZ0FayhD-AA

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2	Limit State method (LSM)	https://youtu.be/T_NTVCsUwXw
3	Analysis & design of singly & doubly reinforced sections(LSM)	https://youtu.be/o4-EAjGhzSw https://youtu.be/iPD1-GDS2rE
4	Shear, Bond and Development Length (LSM)	https://youtu.be/-ETS-5jDjnc https://youtu.be/FUQalddFPXc
5	Analysis & Design of T- Beam(LSM)	https://youtu.be/pralDD3O3c8
6	Analysis & Design of Slab & Stair case(LSM)	https://youtu.be/6VuVxM0R3pU https://youtu.be/ATGEhLFBtk4
7	Design of Axially loaded columns and Footings (LSM)	https://youtu.be/Y1mnf-wyuql https://youtu.be/pOII0RVMj5c

Hydraulics & Irrigation Engineering

Sl#	Description	Link
1	Hydrostatics	https://youtu.be/fldY5IKLdgo
2	Kinematics Of Fluid Flow	https://youtu.be/jnDbVE17Pzg
3	Pumps	https://youtu.be/S3dB-GDpt7M https://youtu.be/6Od_l2p3A5o
4	Hydrology	https://youtu.be/y7Qv3lGr4B4
5	Water Requirements Of Crops	https://youtu.be/Q2eFajx_Giw
6	Flow Irrigation	https://youtu.be/8taL02LzBuM
7	Water Logging & Drainage	https://youtu.be/lvhng-82VFo
8	Diversion Head Works & Regulatory structures	https://youtu.be/9Y74s2a8GKo https://youtu.be/u3y176_nCwA
9	Cross Drainage Works	https://youtu.be/fSJ-hJPPta8
10	Dams	https://youtu.be/fAB3QYHWb_M

Land Survey-I

Sl#	Description	Link
1	Introduction To Surveying, Linear Measurements	https://youtu.be/XttNHtpEMeo
2	Chaining and Chain Surveying	https://youtu.be/gacGOThVGVY
3	Angular Measurement and Compass Surveying	https://youtu.be/9-ekRuK2zKE
4	Map Reading Cadastral Maps & Nomenclature	https://youtu.be/l85hzXUKGBs
5	Plane Table Surveying	https://youtu.be/VJy1vWVBCAg
6	Theodolite Surveying and Traversing:	https://youtu.be/sbCycLk3LiY
7	Levelling and Contouring	https://youtu.be/BTg0hEyVcPI
8	Computation of Area & Volume	https://youtu.be/A6EXFvwuw24

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Highway Engineering		
Sl#	Description	Link
1	Introduction	https://youtu.be/iLrMqVStQS0
2	Road Geometrics	https://youtu.be/EmQQOcMgFQw https://youtu.be/nLyNnQoFQh8
3	Road Materials	https://youtu.be/Lf0eLZlq3k8
4	Road Pavements	https://youtu.be/c2CZSKrWLTm
5	Hill Roads	https://youtu.be/E5BxoTZgF5k
6	Road Drainage	https://youtu.be/kRvA_k1z6ls
7	Road Maintaince	https://youtu.be/4ymS_x_Dfi0 https://youtu.be/OrUEE5BIHvY
8	Construction Equipments	https://youtu.be/dRrTwSmut4k

5th Semester (Civil Engineering)

- **Entrepreneurship and Management & Smart Technology**
- **Structural Design-II**
- **Railway & Bridge Engineering**
- **Water supply & Waste Water Engineering**
- **Estimating & Cost Evaluation - II**

Entrepreneurship and Management & Smart Technology		
Sl#	Description	Link
1	Entrepreneurship	https://www.youtube.com/watch?v=hnBla1FfcLo https://www.youtube.com/watch?v=fudSOyhkxBk
2	Market Survey and Opportunity Identification(Business Planning)	https://www.youtube.com/watch?v=GhhcilsGpRg
3	Project report Preparation	https://www.youtube.com/watch?v=81VRieCm2Q0
4	Management Principles	https://www.youtube.com/watch?v=3j67HQwF4fQ
5	Functional Areas of Management	https://www.youtube.com/watch?v=rHDnJl2hgeM
6	Leadership and Motivation	https://www.youtube.com/watch?v=1oQUHKEiZsE
7	Work Culture, TQM & Safety	https://www.youtube.com/watch?v=yWIAOFs04go
8	Legislation	https://www.youtube.com/watch?v=AYz407uRL0w
9	Smart Technology	https://www.youtube.com/watch?v=LIhmzVL5bm8 https://www.youtube.com/watch?v=OfGxbxUCa2k

Structural Design-II		
Sl#	Description	Link
1	Introduction	https://youtu.be/CqdKcPMVC28 https://youtu.be/dEJk4xptsQQ

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2	Structural Steel Fasteners & Connections	https://youtu.be/B6wXE9wao0E , https://youtu.be/7mcAVua0rKM
3	Design Of Steel Tension Members	https://youtu.be/1ntF-4217JU https://youtu.be/SbxhVxSpkrI
4	Design Of Steel Compression members	https://youtu.be/nSHj-IrFFjUh https://youtu.be/Jr6HNM1XYDI
5	Design of Steel beams	https://youtu.be/yL2KDRXC1m8
6	Design of Tubular steel structures	https://youtu.be/0Wsmu7BL4fU https://youtu.be/iiTP8GvKUwM
7	Design of masonry structures	https://youtu.be/x6Rrovb-xQ4

Railway & Bridge Engineering

Sl#	Description	Link
1	Introduction	https://youtu.be/UPPvQz9OkVY
2	Permanent Way	https://youtu.be/QpiUokQKrog
3	Track Materials	https://youtu.be/Tfh4xgWw-4o https://youtu.be/TNbSXdxTfzg
4	Geometrics for broad gauge	https://youtu.be/jwugK_bT0zc
5	Points and Crossings	https://youtu.be/9MDBn4fwAQM
6	Laying & maintenance of Track	https://youtu.be/suyfPZ_9l0g https://youtu.be/USAvjTIYVIM
7	Introduction to Bridges	https://youtu.be/fcGZdb9PMvg
8	Bridge site investigation, hydrology & planning	https://youtu.be/djrgMijAP8 https://youtu.be/AuZK5SYiPfE
9	Bridge Foundations	https://youtu.be/CpmuajdBxhl https://youtu.be/1T_ePy1K9PM
10	Bridge superstructure & approaches	https://youtu.be/ETx0wN0inBw https://youtu.be/h3yHln4f9IE
11	Culverts & Cause Ways	https://youtu.be/N00t7Hzo6lk

Water Supply & Waste Water Engineering

Sl#	Description	Link
1	Introduction to water supply, quantity and quality of water	https://youtu.be/bwG0VMtFoHM
2	Sources & Conveyance of water	https://youtu.be/LiL0_sfdhQ0
3	Treatment of Water	https://youtu.be/eH38OrP0CPA
4	Distribution system & Appurtenances in distribution system	https://youtu.be/Vei7FUX9Ze8 https://youtu.be/ZSIg_DaCTmU
5	W/S plumbing in Building	https://youtu.be/_kO1x4bDpMk

Estimation & Cost Evaluation-II

Sl#	Description	Link
1	Detailed estimate of Culverts & Bridges	https://youtu.be/vyc36NZGOWA https://youtu.be/F1pC3gCXjzw
2	Estimate of irrigation structures	https://youtu.be/rgOzhnmsix0

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3	Detailed estimate of roads	https://youtu.be/deQQWt-g8kw https://youtu.be/C52qNhizo8Q
4	Detailed estimates of miscellaneous works	https://youtu.be/3p7DuQEerjE https://youtu.be/fb2bPlkrxVc
5	PWD accounts works	https://youtu.be/G7j5LS25TTs https://youtu.be/HGBlgClr7t4

6th Semester (civil Engineering)

- **Land Survey-II**
- **Construction Management**
- **Advanced Construction Techniques & Equipment**
- **Elective (Any one to be opted)**
 - a. **Concrete Technology,**
 - b. **Disaster Management**
 - c. **Architectural Practices & Interior Design**

Land Survey- II		
Sl#	Description	Link
1	Tacheometry:	https://youtu.be/crARLbecxFU
2	Curves	https://youtu.be/ETeWJkKfeRY
3	Basics on scale b& Basics of map	https://youtu.be/QIJ1jVHnAiU
4	Survey Of India Map Series:	https://youtu.be/Kh4A38PWKH8
5	Basics of Aerial Photography, photogrammetry, Dem & Ortho image generation:	https://youtu.be/0qJdQT6UsIA https://youtu.be/nxnzRReNN14
6	Modern Surveying Method	https://youtu.be/NCOB2L4qtyA
7	Basics On Gps & Dgps & ETS	https://youtu.be/6bA4Nj6EzCU
8	Basics on Gps & Map Preparation using GIS	https://youtu.be/-5dfbW57EwE https://youtu.be/Z1eiKW8TwVw

Construction Management		
Sl #	Description	Link
1	Introduction to construction management	https://youtu.be/eb3byH7hF5s https://youtu.be/Pc40yA0eyZo
2	Constructional Planning	https://youtu.be/GGzzvn70_S8
3	Materials & Stores Management	https://youtu.be/UX1YXm4tm1A
4	Construction site management	https://youtu.be/Pc40yA0eyZo
5	Construction Organisation	https://youtu.be/0vPCN6X3FUI

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6	Construction Labour & Labour Management	https://youtu.be/eA-Wjil5tLg https://youtu.be/aiQrg0R70Bc
7	Equipment management	https://youtu.be/dRrTwSmut4k
8	Quality control	https://youtu.be/pVsM3fTzzCg
9	Monitoring Progress	https://youtu.be/E2Qahnv1j1g
10	Safety Management in Construction	https://youtu.be/9YlqZAOXStM
11	Role Of Vulnerability atlas of India In Construction Projects	https://youtu.be/oILX1bXHMMQ https://youtu.be/JW1tsE0lf2I

Advanced Construction Techniques & Equipments		
Sl#	Description	Link
1	Advanced construction materials	https://youtu.be/svsl-bV0bso
2	Prefabrication	https://youtu.be/VHOC0ZaZErE
3	Earthquake Resistant Construction	https://youtu.be/vEwQaK2Lv8 https://youtu.be/yJXicCUpeY
4	Retrofitting of Structures	https://youtu.be/R4W7OAFHLCg
5	Building Services	https://youtu.be/-5KH9glcfpQ
6	Construction & earth moving equipments	https://youtu.be/ugEvO92jn_I https://youtu.be/Ev1wa0wRpgk
7	Soil reinforcing techniques	https://youtu.be/Mnn06QpkGaA

Concrete Technology (Elective)		
Sl#	Description	Link
1	Concrete as a construction materials	https://youtu.be/b12oDRm8STs
2	Cement	https://youtu.be/Y0Y8zuETHOQ
3	Aggregates, water and Admixtures	https://youtu.be/MjqTMqfGJL0
4	Properties of Fresh concrete	https://youtu.be/J_2RZv3zxcI
5	Properties of hardened concrete	https://youtu.be/xgby4vM8Vy8
6	Concrete mix design	https://youtu.be/zNmzS6OOMFA
7	Production of Concrete	https://youtu.be/ti8hpGFXlmg
8	Inspection & Quality Control of Concrete	https://youtu.be/Hu44VH6jRlg https://youtu.be/s4ih2enO0Ms
9	Special Concrete	https://youtu.be/CD98DdgWJK8
10	Deterioration of concrete & Its Prevention	https://youtu.be/wjH6OtBbbW8 https://youtu.be/xlmiCWaYHXk
11	Repair Technology for Concrete structures	https://youtu.be/YbJTbq6MAA8 https://youtu.be/lb2XaB1KbJo