INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI
भारतीय प्रौद्योगिकी संस्थान तिरुपति
Yerpedu-Venkatagiri Road, Yerpedu Post, Tirupati District, Andhra Pradesh - 517 619

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| 1. | Title of the course | Hydraulics |
| 2. | Course number | CE217L |
| 3. | Structure of credits (L-T-P-C) | 2-0-0-2 |
| 4. | New course/modification to | Modified with CE207L/FLUID MECHANICS AND HYDRAULICS |
| 5. | To be offered by | Civil and Environmental Engineering |
| 6. | Proposed by | S Prasanna Venkatesh |
| 7. | Prerequisite | None |
| 8. | **Course Objective(s):** To introduce the concepts of flow through pipe networks, pumps and open channels. | |
| 9. | **Course Content:** Analysis of pipe networks; Introduction to fluid machinery: pumps and their classification, pump characteristics and operation; Open channel flows: energy and momentum equations, specific energy, critical depth, flow transitions, uniform flow, gradually varied flows, hydraulic jumps. | |
| 10. | **Textbook(s):**<br>1. White F M, Fluid Mechanics, 8th Edition, McGraw Hill (2017).<br>2. Subramanya K, Flow in Open Channels, 5th Edition, McGraw Hill (2009). | |
| 11. | **Reference(s):**<br>1. Munson B R, Okiishi T H, Huebsch W W and Rothmayer A P, Fundamentals of Fluid Mechanics, 8th Edition, Wiley (2020). | |