1. Record Nr. UNINA9910782503503321 Autore Asawa G. L Titolo Laboratory work in hydraulic engineering / / G.L. Asawa New Delhi:,: New Age International (P) Ltd., Publishers,, 2006 Pubbl/distr/stampa **ISBN** 1-281-22434-0 9786611224349 81-224-2320-5 Descrizione fisica 1 online resource (x, 193 pages): illustrations 627 Disciplina Soggetti **Engineering laboratories** Hydraulic engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Cover; Preface; Contents; 1. Elementary Terms of Fluid Mechanics; 2. Fundamental Equations Governing Fluid Motion: 3. Open Channel Flow: 4. Basic Facilities in Hydraulic Engineering Laboratory; 5. Writing Laboratory Reports; 6. Viscometer; 7. Surface Tension; 8. Centre of Pressure; 9. Metacentric Height; 10. Bernoulli's Equation; 11. Impact of a Fluid Jet; 12. Horizontal Water Jet through an Orifice; 13. Orifice Meter: 14. Venturi Meter: 15. Triangular Weir or V-notch: 16. Viscous Flow Analogy: 17. Electrical Analogy: 18. Effect of Vorticity: 19. Forced Vortex Flow 20. Flow through Porous Medium; 21. Stokes' Law; 22. Transition from Laminar to Turbulent Flow; 23. Velocity Distribution in Pipes; 24. Frictional Head Loss in Smooth and Rough Pipes; 25. Minor Losses in a Pipeline; 26. Bend Meter; 27. Boundary Layer over a Flat Plate; 28. Drag Around a Cylinder: 29. Uniform Flow in a Channel: 30. Velocity Distribution in a Channel; 31. Vertical Contraction in a Channel; 32. Horizontal Contraction in a Channel; 33. Broad-Crested Weir; 34. Hydraulic Jump; 35. Free Overfall; 36. Horizontal Expansion in a Channel; 37. Reservoir Flood Routing; 38. Submerged Hydraulic Jump; 39. Forced Hydraulic Jump; 40. Vertical Fall; 41. Ogee (Overfall)

Sommario/riassunto

Spillway; 42. Sediment Distribution at Offtakes; 43. Scour around Spurs In almost all technical institutions of learning, the laboratory work in

any subject runs concurrently with the course in theory of the subject. Consequently, the students perform the laboratory work mechanically without intellectual involvement in the work. It is, therefore, necessary that the students, before conducting the experimental work, are familiarized with elementary theoretical and other aspects relevant to the experimental work. This book is an attempt to serve this objective for the subject of hydraulic engineering.