

USEFUL RESOURCES

SUBJECT NAME: Hydraulics & Hydraulic Machines

Course Offered by: Prof. Deepesh Singh

Basics of OCF

<https://www.engr.scu.edu/~emaurer/hydr-watres-book/flow-in-open-channels.html#an-important-dimensionless-quantity>

https://staff.civil.uq.edu.au/h.chanson/reprints/b32_chap01.pdf

<https://booksite.elsevier.com/samplechapters/9780750668576/9780750668576.PDF>

<https://testbook.com/civil-engineering/open-channel-flow-classification-and-types>

<https://www.sciencedirect.com/topics/earth-and-planetary-sciences/open-channel-flow>

<https://www.caee.utexas.edu/prof/maidment/ce365kspr14/visual/openchannels.pdf>

Uniform Flow

https://coast.nd.edu/jjwteach/www/www/344/PdfNotes/topic2_1.pdf

<https://www.cedengineering.com/userfiles/Uniform%20Open%20Channel%20Flow-RI.pdf>

https://web.eng.fiu.edu/arleon/courses/Open_Channel/Lectures/Uniform_flow.pdf

Energy Depth Relationship

<https://www.youtube.com/watch?v=CfgzRl0saXg>

https://www.youtube.com/watch?v=L6zVCeSxF_Y

<https://www.sciencedirect.com/science/article/abs/pii/S0309170807001595>

<https://www.studocu.com/row/document/addis-ababa-university/open-channel-hydraulics/lecture-note-ch-2-energy-depth-relationship/10522095>

Gradually Varied flow

[https://geo.libretexts.org/Bookshelves/Sedimentology/Introduction to Fluid Motions and Sediment Transport \(Southard\)/05%3A Open Channel Flow/5.07%3A Gradually Varied Flow#:~:text=Nonuniform%20open%2Dchannel%20flows%20for,are%20called%20gradually%20varied%20flows.](https://geo.libretexts.org/Bookshelves/Sedimentology/Introduction_to_Fluid_Motions_and_Sediment_Transport_(Southard)/05%3A_Open_Channel_Flow/5.07%3A_Gradually_Varied_Flow#:~:text=Nonuniform%20open%2Dchannel%20flows%20for,are%20called%20gradually%20varied%20flows.)

https://web.eng.fiu.edu/arleon/courses/Open_Channel/Lectures/gradually varied flow.pdf

<https://www.youtube.com/watch?v=l2UZ8f4uTYw>

<https://www.youtube.com/watch?v=DUS2cq8iSg>

Hydraulics Jump

https://www.youtube.com/watch?v=-1E5vZUeN_w

<https://www.youtube.com/watch?v=YqYmAf0NRPE>

[https://geo.libretexts.org/Bookshelves/Sedimentology/Introduction to Fluid Motions and Sediment Transport \(Southard\)/05%3A Open-Channel Flow/5.05%3A The Hydraulic Jump](https://geo.libretexts.org/Bookshelves/Sedimentology/Introduction%20to%20Fluid%20Motions%20and%20Sediment%20Transport%20(Southard)/05%3A%20Open-Channel%20Flow/5.05%3A%20The%20Hydraulic%20Jump)

<https://practical.engineering/blog/2019/3/9/what-is-a-hydraulic-jump>

Notches and Weirs

https://link.springer.com/chapter/10.1007/978-3-030-99754-0_9

<https://fm-nitk.vlabs.ac.in/exp/calibration-rectangular-notch/theory.html>

https://www.youtube.com/watch?v=hjSaSkto7_c

https://www.slideshare.net/sush_vyas/presentation-on-notches-and-weirs

Impact of jet

<https://www.nrtec.in/wp-content/uploads/2022/07/HYDRAULICS-AND-PNEUMATICS-SYSTEM.pdf>

<https://idealschool.edu.in/Lecture%20Notes/MECHANICAL%20ENGINEERING-4th/Fluid%20Mechanics-IMPACT%20OF%20JETS.pdf>

<https://www.youtube.com/watch?v=ZHWNFBi2G8w>

<https://www.youtube.com/watch?v=QS9XaiFjPAY>

Turbines

<https://www.youtube.com/watch?v=X3XgIueu4xk>

https://energyeducation.ca/encyclopedia/Pelton_turbine

<https://www.youtube.com/watch?v=Jd5BN7SPkqI>

https://www.youtube.com/watch?v=qbyL--6q7_4

<https://www.youtube.com/watch?v=-bKy9IW-BDg>

<https://www.youtube.com/watch?v=KUnEGPRxCb4>

<https://www.youtube.com/watch?v=hJEq7BKlq8U>

<https://fmc-nitk.vlabs.ac.in/exp/kaplan-turbine/theory.html>

Pumps

<https://www.rotechpumps.com/what-is-a-centrifugal-pump/>

<https://fmc-nitk.vlabs.ac.in/exp/centrifugal-pump/procedure.html>

<https://www.youtube.com/watch?v=ssJoBq0MHfg>

<https://www.youtube.com/watch?v=pRUUWb77Sr0>

Methods of Measuring Flows in Open Channels

<https://www.openchannelflow.com/blog/methods-of-measuring-flows-in-open-channels>

<https://www.youtube.com/watch?v=Jq7S5eCUxTA>

<https://www.youtube.com/watch?v=Rf38WkLLsZg>

<https://www.youtube.com/watch?v=TCTS53JeV9I>