

COURSE TITLE	TE142709: Biometric System Credits: 3 ELECTIVE COURSE
LEARNING OBJECTIVES	Students have the knowledge about single modal and multi modal biometric system and failure process in identification and how to solve it using ROC curve.
COMPETENCY	<ul style="list-style-type: none"> • Students can explain the design methods of single modal and multi modal biometric system. • Students can explain failure process in identification of biometric system and how to reduce it.
SUBJECTS	<ul style="list-style-type: none"> • Phenomenon of biometrics. • Single modal and multi modal biometric identification for recognition. • Failures in biometric identification and how to solve them. • ROC curve. • Biometric system using ROC curve.
MAIN REFERENCES	Anil K. Jain, Patrick Flynn, Arun A. Ross, <u>Handbook of Biometrics</u> , Springer Verlag 2005
OPTIONAL REFERENCES	<ul style="list-style-type: none"> • M. Negin, T. A. Chmielewski, M. Salganicoff, T. A. Camus, U. M. C. von Seelan, P. L. Venetianer, and G. G. Zhang. <u>An Iris Biometric System for Public and Personal Use</u>. IEEE Computer, 33(2):70–75, February 2000. • M. S. Nixon, J. N. Carter, D. Cunado, P. S. Huang, and S. V. Stevenage. Automatic Gait Recognition. In A. K. Jain, R. Bolle, and S. Pankanti, editors, <u>Biometrics: Personal Identification in Networked Society</u>, pages 231–249. Kluwer Academic Publishers, London, UK, 1999. • L. O’Gorman. <u>Comparing Passwords, Tokens, and Biometrics for User Authentication</u>. Proceedings of the IEEE, 91(12):2019–2040, December 2003. • P. J. Phillips, P. Grother, R. J. Micheals, D. M. Blackburn, E. Tabassi, and J. M. Bone. FRVT2002: <u>Overview and Summary</u>. http://www.frvt.org/FRVT2002, March 2003.
PREREQUISITE	<ul style="list-style-type: none"> • Discrete Mathematics and Graph Theory