

**BSc in Information Technology Specializing Data Science**  
**Semester 02**  
**Lab Exercise 10**  
**IT3071 – Machine Learning and Optimization Methods 2022**  
**Reinforcement Learning – Support Vector Machines**

- (01) Import the diabetes dataset to the Python environment.
- (02) Split the data into training & testing.
- (03) Fit a Support Vector Classifier model under Support Vector Machines to predict the **Outcome** variable using all the predictors.
- (04) Find the prediction accuracy using testing data.
- (05) Instead of the Validation Set approach, using the Cross Validation approach, find the prediction accuracy using the same SVM model.
- (06) Compare the results obtained in (04) and (05).