

Soft Computing Methods and Applications

Lab Exercise and Assignment #1 (2020)

Get familiar with charting programming,
using the MS .NET component MS Chart

- (1) Install and upgrade your Visual Studio tool to VS 2019 and make sure MS Chart component is available for Windows Form applications.
- (2) Develop a Windows application that can graphically display parameterized functions of a single variable. Prepare UI components to let the user specify different parameter values and range of the variable.

Functions to be displayed are:

$$(a) \quad t(x; a, b, c) = \begin{cases} 0, & x \leq a. \\ (x-a)/(b-a), & a \leq x \leq b. \\ (c-x)/(c-b), & b \leq x \leq c. \\ 0, & c \leq x. \end{cases}$$

$$(b) \quad g(x; c, \sigma) = e^{-\frac{(x-c)^2}{2\sigma^2}}$$

$$(c) \quad b(x; a, b, c) = \frac{1}{1 + \left| \frac{x-c}{a} \right|^{2b}}$$

- (3) Prepare a folder named as <your ID><your name>Ass01 to put your source code in it. Compress it as an rar file (or a zip file) and submit the file to COOL.

Learning Targets:

List of .Net Framework data representing classes: Chart, ChartArea, Series, Axis, ...