

Project 1
The Modular Method

The modular method consists of multiplying the interpolation function $s(t)$ by $2 \left[1 + \cos\left(\frac{2\pi t}{T}\right) + \cos\left(\frac{4\pi t}{T}\right) + \dots + \cos\left(\frac{2N\pi t}{T}\right) \right]$ and then low-pass filter the result.

- 1- Simulate the modular method using Mathcad for
 - i- Sample-and-hold distortion
 - ii- Linear Distortion
 - iii- Extra Credit: for Spline interpolation distortion using lspline and cspline commands of Mathcad

- 2- Your report should contain the following parts:
 - a- An abstract of about 50 words
 - b- An introduction consisting of a statement of the problem, its relevance and history with references to previous works.
 - c- Solution and algorithms
 - d- Simulation Results and discussions
 - e- Conclusion
 - f- References
 - g- Appendix: Mathcad codes