MANGALORE UNIVERSITY

DEPARTMENT OF ELECTRONICS
MSc Electronics

ELS 506 - DSP PROCESSORS

Unit I

10 Hours

Programmable Digital Signal Processors: A Survey, VLIW Processor Architectures and Algorithm Mappings for DSP Applications, Multimedia Instructions in Microprocessors for Native Signal Processing

Unit II

10 Hours

Reconfigurable Computing and Digital Signal Processing:Past, Present, and Future, Parallel Architectures for Programmable Video Signal Processing, OASIS: An Optimized Code Generation Approach for Complex Instruction Set PDSPs

Unit III

10 Hours

Digital Signal Processing on MMX Technology, Hardware/Software Cosynthesis of DSP Systems, Data Transfer and Storage Architecture Issues and Exploration in Multimedia Processors

Text Book:

(1). "Programmable Digital Signal Processors Architecture, Programming, and Applications"-edited by Yu Hen Hu, Marcel Dekker, Inc., 2002

References:

(1). "DSP Processor Architectures Fundamentals -Architectures and Features"-Phil Lapsley, Jeff Bier,AmitShoham,Edward A. Lee, IEEE & a john wiley& sons, inc., publication, 1996

(2). " Embedded DSP processor Design - Application Specific Instruction Set Processors"-Duke Liu, Morgan Kaufmann, 2008