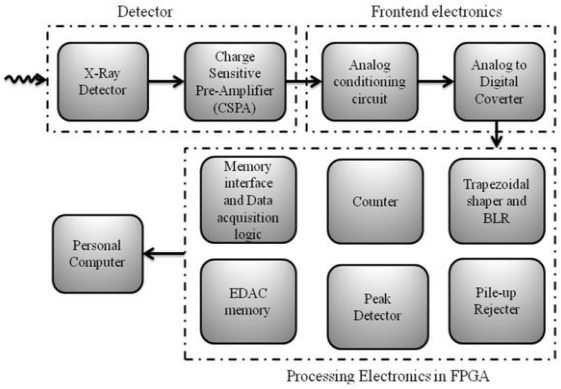
DIGITAL PULSE PROCESSING ALGORITHM

U R Rao Satellite Centre (URSC) of Indian Space Research Organization (ISRO) has developed Digital Pulse Processing (DPP) algorithm in FPGA to process spectroscopic data from radiation detectors.



Salient Features

- Processing of signals from radiation detectors in digital domain.
- Miniaturization in PCB board space.
- Generalized scheme for any radiation detector system.
- System transfer function is independent of temperature variation and component aging.

Major Specifications

- Input voltage Range: up to +2 Volts.
- System performance: FWHM of 150 eV @ 5.9 keV for SDD detector
- Applicable for any radiation detection system for spectroscopic analysis.
- Up to 12 bits digitization.
- Sampling frequency 20 MHz.
- Multiple DPP channels can be accommodated in a single FPGA depending upon resource utilization.

Technology Transfer

URSC-ISRO offers to transfer this technology of Digital Pulse Processing (DPP) algorithm by URSC to industries in India with adequate experience and facilities. Industries interested in obtaining knowhow may write giving details of their present activities, infrastructure and facilities.