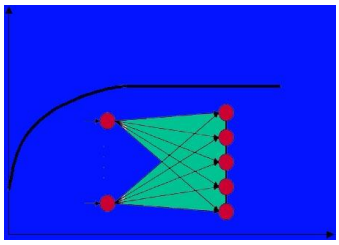

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Module 6.
3D Seismic Inversion

Aki-Richards, Wiggins and Fatti forms of Zoeppritz equations linearizations.
The 2 and 3 term Aki-Richards equations.
Significance of intercept, gradient and curvature.
Offset to angle conversions.
AVO seismic attributes and composite attributes and interpretation methods.
Poisson ratio change, shear reflectivity and fluid factor, Rp and Rs.
Castagna mud-rock line.
Rutherford AVO classification.
NI-G xplot and AVO classes.

AVO/AVAZ VTI and HTI weak anisotropy.
Thomsen parameters.
The Aki-Richard equation as a function of Thomsen parameters.
Ruger VTI and HTI equations.
Polarization analysis and anisotropy static modeling.

3D SEISMIC INVERSION
Post-stack and pre-stack seismic inversion.
Elastic inversion.
Acoustic impedance, elastic impedance, extended elastic impedance.
Independent AVO inversion.
Simultaneous AVO inversion.
LMR.

PROCESSING ISSUES
Random and coherent noise attenuation.
Super-gather, parabolic radon transform, RNMO and higher oreder moveout.
Time variant trim statics.