MEMS @ Texas Tech









MEMS Testing and Characterization





<u>Testing</u> Custom Drivers Microscope probe stations Interferometric Microscope Electron Microscope Atomic Force Microscopes



MEMS Control







Terrer (proj.

MEMS



Integrated Sensing & Control

Adaptive Optics Non-contact digital micromirrors





MEMS Education

Three Course MEMS Curriculum







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Sandia National Labs SUMMIT V Process University Alliance Program

M-M

Layer Thickness MMPoly4 [2.25] SacOx4 [2.0] Dimple MMPoly3 [2.25] SacOx3 [2.0] Dimple MMPoly 2 [1.5] SacOx2 MMPoly 1 [0.3] [1.0] Dimp SacOx1 [2.0] MMPoly 0 [0.3] Silicon Nitride [0.8] SiO₂ [0.63] Substrate 6" <100> n-type

The 18mm² Classroom, T. Dallas, J. Berg, & R. Gale Hilton Head 2006



MEMS Integration



LED Illuminators for DMD-based video projection systems Generation of arbitrary sequences of ultrafast pulses







IR detector with integrated shutter

MEMS Microphone



Biochemical sensors





MEMS Organization

TEXMEMS IV – Texas Tech University – July 2002

T. Dallas – Co-Chair MEMS Technical Working Group, Texas State Strategy on Advanced Technology

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