TRAINING & SIMULATION

INDUSTRY SYMPOSIUM

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&SIMULATION
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Mr. Jerry Speer

Technical Lead, DARPA Cell

Broad Overview of Areas of Interest

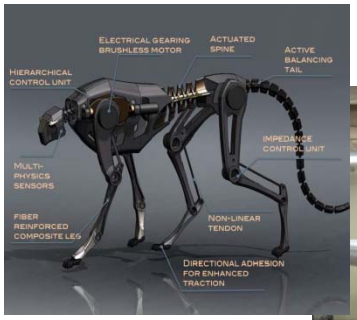
DARPA Cell Supports M&S in Six Key Areas

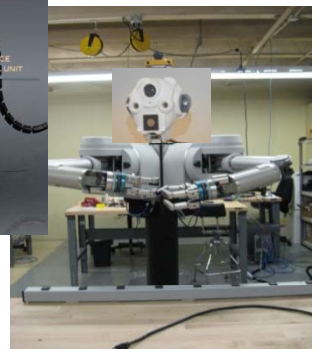
US ARMY RDECOM ARL

SENSING – FEATURE / PATTERN MATCHING

MATERIAL SCIENCE MODELING – BLAST MODELING

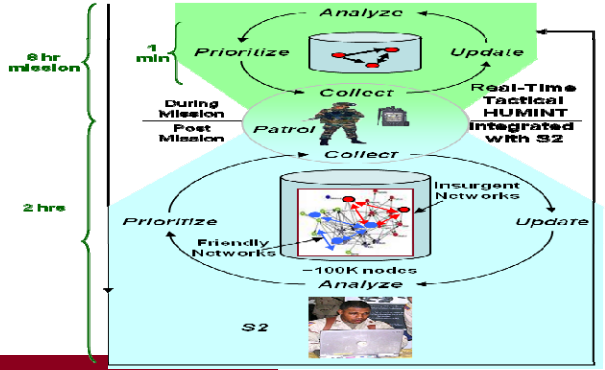
ROBOTICS – DISTRIBUTED CONTROL, PERCEPTION AND MANIPULATION





POWER AND ENERGY TEAMED WITH ARL

TRAINING



SBIRs

DARPA (DSO and I2O)

M&S & TRNG

DARPA Cell Supports M&S in Six Key Areas

SENSING – FEATURE / PATTERN MATCHING

*FOPEN – Foliage Penetration *GMTI exploitation
*WAND – WAMI exploitation
•ADAPT - Common HW/SW

*Technology focused on mathematics of feature matching and pattern matching and how to extract patterns for maximum Pd

MATERIAL SCIENCE MODELING – BLAST MODELING

(Teamed w/ TARDEC)

•Ultra-Light Vehicle (ULV)
•(MOA)
•Soldier Protection System (SPS)

Partnerships with TARDEC and DARPA which should lead to embedded training opportunities for vehicles of the future

ROBOTICS – DISTRIBUTED CONTROL, PERCEPTION AND MANIPULATION

•Autonomous Robotic Manipulation (ARM)

•Maximum Mobility and Manipulation (M3)

•Science and Technology (STEM) outreach by providing "actual" ARM simulation SW to University and High School communities

POWER AND ENERGY

(Teaming w/ARL Adelphi, Dr. Deryn Chu)

• Solid Oxide Fuel Cells (SOFC)
  – Dramatic TTP changes as endurance increases (Stalker UAV)

• Engenuity SC – Fuel Cell M&S research & Gov't IV&V

"TRAINING"

• Strategic Social Interaction Module (SSIM) / COMBAT
• HUNTER
• GUARD DOG / COIN

Monitor FebBizOps and DARPA.mil for solicitation information

DARPA SBIRs

• 60+ Phase II SBIRs
• Novel R&D which enables niche R&D in key areas (next cycle is 11.X)

• Risk reduction for larger DARPA programs