Systems Engineering as the Integrating Discipline to Help Improve Program Performance

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Harris GCS Engineering and Operations is Organized to Align People, Disciplines, and Technology for Support to Programs

Systems Engineering
Aligned with customer business areas
- Software, Digital, Mechanical, Antennas, RF, Photonics, System I&T, System Support, CM

Design Engineering
- Manufacturing, Quality, Facilities, Enterprise Asset Management, Safety and Mission Assurance

Operations
- Strategic Technology, IR&D

Research & Development
- Subcontracts, Material Planning, Procurement

Supply Chain
- Operational Effectiveness, Lean Six Sigma

Harris Business Excellence
- Information Technology

Engineering IT

Microelectronics
Image Processing
Signal Processing
Enterprise Architectures
Antennas
RF & Microwave
Robotics Systems
Network Systems
Photonics
Mobile Computing
## Harris SE Leadership Roles

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<th>SE Role</th>
<th>Definition</th>
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<tr>
<td><strong>Chief Systems Engineer (CSE)</strong></td>
<td>Senior technical authority and point of contact for a program, pursuit, study.</td>
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<tr>
<td><strong>Project Engineer (PE)</strong></td>
<td>Implements and executes the plan for delivering the system, within established cost, schedule, and technical baselines.</td>
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<tr>
<td><strong>Systems Architect</strong></td>
<td>Creates program conceptual approach based on a thorough understanding of customer mission, applications, and value system.</td>
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<tr>
<td><strong>Advanced Programs Engineer (APE)</strong></td>
<td>Provides strategic technical leadership to draw on Harris technical competencies to meet the business needs of Harris and its customers.</td>
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<tr>
<td><strong>Enterprise Architect</strong></td>
<td>Works with stakeholders to validate understanding of an organization’s strategy, processes, information, and information technology assets.</td>
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### SE Leadership Roles Target Mission Success from Concept through Deployment

![Diagram showing the overlap of roles and their emphases on strategic, tactical, and technical requirements.](image)
### Critical Factors for Managing Success in Business and Program Performance

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<th>Success Factor</th>
<th>Systems Engineering in Practice</th>
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| Affordability                  | • Affordability trade-offs, training on the mindset  
• Right-sizing requirements (and sticking to them)  
• Life Cycle Cost, Design to Cost (DTC), Design for “X”                                                                                       |
| Technology Discriminators     | • Engineer solutions to hard mission problems  
• Proactive risk mitigation, TRL (may vary by domain)  
• Alignment of targeted IR&D technology investments                                                                                          |
| Invest in Improvements that Matter | • Operational effectiveness - portfolio prioritized by ROI  
• Lean Six Sigma – better, cheaper, faster  
• The right incentives to re-invest efficiency savings                                                                                        |
| Incentivize Innovation and Collaboration | • Accelerate culture change, break traditional mindsets  
• Environments designed for innovation, collaboration  
• Rapid prototyping, technology demos, labs, studies                                                                                     |
| Talent Management             | • Workforce competencies and skills (leadership, technical)  
• Succession planning, mentoring, SMEs, program support                                                                                   |

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