

Engineer. Scientist. Writer. Inventing, developing, measuring, designing, deploying across diverse products, in any country, combining an understanding of the Physical Universe with the Practicality of an Engineer.

Who better to author technical documentation than the person that designs that technology? I *Deliver* solutions to technical problems, working with all levels from clerk to technician to executive.

Skills

- Expert Technical Writing – Reports, Patent Applications, Brochures, Policies, Web-pages, Service and Operation Manuals
- Demonstrated ability to transfer technology through scientific presentation and authorship
- Patented – see <http://msala.us/root/Patents-1.html> for details
- Proficient in MS Office, WordPerfect, Adobe, *Dreamweaver4*, *Framemaker9*, and, *PaintShop*, Scanner and Camera-work
- Interacting with Customer as a consultant, engineer, expert and mostly an *Advocate*
- CAD capable – *SolidWorks 7*, *ORCAD*, *LabView*, *COMSOL*, *OptiCAD*, *MathWorks*
- Multidisciplinary: combines many fields to provide unparalleled value to Customer
- Lectures, talks and mentoring to Interns/ Students, Staff, and external conferences (Woods Hole Oceanographic etc.)
- Develop and maintain key contacts within the technical community
- NDE, Remote Sensing, Measurements and Instrument design, building, deploy

Successes – Abbreviated List: Responsible for the profitable completion of projects including:

- Perfection of HPFS LASER-line optics at the *National Ignition Facility*
- Rescuing the \$2B Corning SMF28 Fiber Facility from patent infringement
- Patenting an gasoline-exhaust catalytic convertor that *eliminates* greenhouse gasses
- Founding a Non-Destructive Analysis lab, designing much of the equipment
- Saving \$3M loss/reservoir in Advanced Life-Sciences Genomics project
- Eliminated Platinum loss in Diesel Particulate Filters (DPF) saving \$100s/ filter loss
Designed means to evaluate *micro-reactors* for small-scale chemical processing plants
- Patented Rear-Vision system twenty years before popular on today's Ford vehicles

Career Snap-Shot (9 US Patents; 13 applied, 25 written)

Manager, Biomedical Engineering Department, *Samaritan Medical Center*, Watertown, NY August 2011 – October 2013; operating a high-tech medical electronics department

Consultant, Science and Technology Problem Solving, Theresa, NY – May 2009 identifying root-causes and providing the means to fix scientific, technologic, process, production and business problems; pencil-on-napkin designs that today are not only making money, but a difference to contemporary society.

Sr. Research Scientist, Corning Incorporated, Corning, NY – August 1997 through March 2009.

Vice President of Development, MBS Foundry Incorporated, Mt. Morris, NY 1992-1996

Military Service and Education

US Navy, Advanced Electronics, Honorable Discharge

BS Biophysics, *SUNY at Buffalo*; Electrical Technology, *Erie County Community College*; Advanced Electronics, *US Navy Service School Command*, Great Lakes, IL

LEAN Green-Belt; Six Sigma White Belt <http://msala.us> for more details

©MA Sala 2014



MA Sala patented this rear-vision mirror 20 years before Ford used it. US Patent 5,642,238



I am considered an expert of the design of instrumentation, optics and sensing, experimentation and deployment to industry; advise and instruct others in carrying out this work on a regular basis and am consulted by my colleagues and/or superiors in unusually complex situations. I write on all of these topics.

1. Develop novel technology (materials/equipment/systems) that significantly extend the capability of existing technology.
2. Document the development process so it may be applied to IP or future projects.
3. Utilize writing tools such as *Microsoft Office*, *ADOBE Framemaker*, *Word-Perfect*, *Photo-Shop*, *SolidWorks* (for technical drawings), *OrCAD* for electronic projects, *OPTICAD* for optics, *Mathcad*, *LabView* and *COMSOL*
4. Develop solutions to mitigate or eliminate obstructions to project completion.
5. Preliminary research of projects to help determine feasibility
6. Interpret project requirements to formulate project plans to successfully execute projects.
7. Work across disciplinary boundaries in order to develop multidisciplinary solutions to complex problems.
8. Write proposals to secure and manage funding.
9. Because of the extensive experience in systems and device maintenance, I know about bad Service Manuals and how to write one with the pithy-plot of: Let's fix this with minimal pain to the Service Engineer and the Customer.
10. Number 10 WRT Operator's Manuals
11. Invention Disclosures; pre-Patent documentation
12. Contribute to project/program management functions to enhance team knowledge.
13. Lead engineering/scientific teams to execute projects safely, within budget, and on schedule.
14. Facilitate relationships between peers, sponsor organizations, key stakeholders, higher-level management, and industry to ensure engineering products are provided on schedule.
15. Develop briefings for the delivery of program information to government leaders and key groups
16. Lead conferences/meetings to discuss issues and influence decision making.
17. Provide data analysis, modeling, and test and evaluation.
18. Review design or project plans to assign tasks to other engineering/scientific functions.
19. Use advanced engineering/scientific techniques, requirements, methods, sources, and procedures in a specialty area to perform job functions.