PETER R. TSAI
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CAREER SUMMARY: Major in M.E. (MSME) minor in Ch.E. extensive industrial experience in Project Management (EPCM, Product and Process Development), Cost Engineering, Mechanical, Process and Manufacturing Engineering, contract manufacturing and global out-sourcing.

- Product/process design and development from conceptual to commercialization in electronic, pharmaceutical process, medical device, automotive, material, consumer product, agglomerated material (6 patents awarded and more than 40 patents filed).
- Project management and cost control, engineering cost estimation, product/process feasibility, profitability, P&L, pro-forma analysis. Managed and built 4 manufacturing plants $60 - $220 million in budget.
- Subject expert: Formulation process - mixing, compacting, separation, drying, tabulating, powder and bulk solid process, web handling, extrusion, injection molding and coating processes, mechanical and chemical equipment and process design, Established safety TPM/RCM, maintenance, engineering, and quality system for plants worldwide.
- Experienced on contract manufacturing, global engineering service, raw material, tooling, and equipment out-source. Led design and saved 70% from original equipment cost.
- Process, product, production operation improvement, and cost reduction. DFA/M, Lean Sigma, DMAIC, DOE, CAPA, APQP, QFD, FMEA, SPC, PPAP, TS16949.
- Hazardous, flammable, explosive material process and equipment design, comply with OSHA, EPA regulation, NFPA/7074, NEMA, NEC codes. Certified Capital Project Manager and RCM/TPM, Kepner-Tregoe training facilitator.
- Fluent in Chinese.

Experience

Clysar, LLC, R&D and Engineering, Clinton, IA, Lead Engineer (Jan 2016 - June 2017)

- Led micro multilayer extrusion die production line, web handling and in line radiation production line design and development;
- Managed multiple capital projects from process and equipment design and development, cost estimation, profitability analysis, implantation, start up and final technology transfer; (production and process equipment, construction, off-site utilities capital projects).

Conti-Tech/ Good Year Engineered Products, Engineering Group, Fairlawn, OH, Lead Engineer (2013- 2015)

- Led and managed global capital projects and contract manufacturing, vender selection, price negotiation, and auditing; Lead process /equipment design, fabrication installation, start-up, and training result in more than 60% capital investment reduction (lamination, extrusion, web handling and braiding process equipment).
- Conducted product and process feasibility study, project cost estimation, profitability and Pro-forma analysis; Develop corporate technical/engineering, safety, PM standards and procedure, equipment general specification and RFQ standards, web handling design guideline, EPCM engineering project procedure and RCM program.
- Provide training for TPM/RCM, Capital Project Management and Cost Estimation.

Energizer, Engineering Dept. Westlake, OH, *Staff Engineer I (1996-2013)*

- Conducted engineering feasibility study, pro-forma analysis and provided business recommendations to top management by evaluating potential joint venture and partners' new products and new processes (Sandia National Lab, MIT, ATK, Albemarle).
- Led and managed new product, process design and development. In one case, improved

new material increased both service and production efficiency more than 280%.

- Managed and commissioned 3 manufacturing plants –chemical process and high speed automatic production and assembly line budgeted from $60-$220 million.
- Led product, process and production cost reduction efficiency and quality improvement projects (DMAIC, FMEA, Lean Sigma, CAPA, etc.). In one case, reduced 14 people/shift.
- Designed production equipment for company worldwide plants, Conducted process and equipment verification and validation. Includes automatic assembly equipment, packaging equipment, injection molding, winding, web handling, coating equipment, solvent recovery system, emission control, formulation process system, and HVAC.
- Participated in raw material, tooling and equipment vendor selection, negotiation and audit contract manufacturing, reducing costs by 20%.

DURACELL, International Engineering Group, International Assignment -Expatriate, U.S, U.K. Germany, Belgium, H.K. and China ***Project Leader*** ***(1994 - 1996)***

- Participated in $150 million China Plant EPCM project: front end engineering, managing, design, system integration and start-up. Responsibilities also included site selection, regulation and policy review, permits application, contractor administration, cost control, documentation development, and recruited / trained engineers and operators.
- Managed the Plant construction and equipment design, installation and startup. (building, chemical process and high speed automatic assembly equipment, off-site utilities and accessory equipment)
- Led raw material, tooling, equipment, engineering service supplier / vendor selection, negotiation, and audit, results in average 40% saving.

W.R. GRACE, Washington Research Center, Engineering Consulting Dept., Columbia, MD. ***Senior Engineer*** **(1991-1994)**

- Led engineering feasibility studies and pro forma analysis which include product/process design, material selection, project / production cost estimation, product life cycle and competitive technology evaluation for commercializing the newly developed automotive and medical products (market research, P&L analysis, sales price and sensitivity analysis).
- Developed automotive emission control and medical devices from product, process and equipment design through final production (injection molding, extrusion and hollow fiber spin, plastic, web handling and sheet metal process). Applied QFD, FMEA, DFM/A, reducing parts' count from 80 to 20; saving 60% on capital investment and manufacturing costs, and significantly improving the product performance.
- Executed engineering capability / efficiency studies, developing new product and process to increase production yield and efficiency from 10% to 95%.

Du Pont, Engineering Department, Wilmington, DE, Engineering Specialist (1988-1991)

- Designed and developed pharmaceutical/chemical processes and production systems.
- Participated in design of CD, multi-layer PCB, thin film and flexible PCB automatic injection molding, coating, lamination, assembly, packaging and inspection lines.
- Designed equipment and processes for class 1 and 10 clean room applications. Participated in development of software package for process simulation, statistical analysis, project economic evaluation and optimization. Performed feasibility studies and design improvement for high speed electronic components and medical device production.
- Participated technology transfer to low cost country.
- Conducted equipment reliability study and improved system reliability and efficiency.

EDUCATION: **M.S.M.E.** University of Rhode Island, Kingston, RI
B.S.M.E. with minor in Ch.E. Shandong University., Jinan, P. R. China

SPECIAL SKILLS: Cross-functional experience and knowledge in ME/IE/PE/Mfg.E/Cost engineering fields: Proficient in U.S, European and Asia material, engineering and industrial regulation, Mechanical and Chemical process and equipment design and development; P&ID, plant and equipment functional description development; high speed assembly, ASME B31.3 piping design and pump selection; ASME Y14.5M GT&D, metric standards;, RCM/TPM, 3D solid modeling (Inventor); injection molding and extrusion, coating, AutoCAD; HVAC, refrigeration and boiler technology; material packaging, statistical analysis, hydraulic and pneumatic system design, equipment corrosion prevention and material selection, ITRA, GR&R, JIT, 5S, Value Stream Mapping, Visual Factory, TPM/RCM, SPC, DFA/M, Lean Sigma, DMAIC, DOE, CAPA, APQP, QFD, FMEA, SPC, PPAP, TS16949.

PERSONAL: U.S. Citizen

ADDENDUM TO
Peter R. Tsai' Patents

- Methods for Producing Agglomerates of Metal Powders and Articles Incorporating the Agglomerates; *Manufacturing Process;*
  - U.S. Patent 7,413,703, August 19, 2008.
  - WO2004068619A3; Dec. 12, 2004
  - AT445235T; Oct. 15, 2009
  - CN100573980C; Dec. 23, 2009
  - DE602004023475D; Nov. 19th, 2009
  - EP1584118B1; Oct. 7th, 2009
  - HK1079903A1; January 22, 2010
  - JP04658035B2; March 23rd, 2011

- Methods for Producing Agglomerates of Metal Powders and Articles Incorporating the Agglomerates; *Agglomerated Material Application*;
  - U.S. Patent 7,709,144, May 4, 2010

- Electrochemical Cell;
  - U.S. Patent 7,556,888, July 7, 2009,
  - WO2005081337A2; Sept. 1st, 2005
  - EP1714337A2; Oct. 25th, 2006
  - CN100565979C, Dec. 2nd, 2009
  - JP04885739B2; Feb. 29th, 2012
  - IN200604450P1; Aug. 10th, 2007

- Electrochemical Cell Having Low Volume Collector Assembly;
  - U. S. Patent 8,236,444 Aug. 7th, 2012
  - WO2008118262A1; Oct. 10, 2012.

- Combined electrically heat-able and light-off converter (Automotive Catalytic Converter)
  - U. S. Patent 5,456,890, October 10, 1995

- Improved Combined Electrically Heat-able and Light-Off Converter (Automotive Catalytic Converter)
  - WO1995016110A1; June 6, 1995;
  - EP733156A1; Sept. 25, 1996

More than 40 patent applications and trading secrets applied and awarded.

Peter Tsai

- San Marcos, CA, USA

Contact Information

- peterr.tsai@gmail.com (Preferred)
- 7606134585 (Preferred)

Work History

Total Work Experience: 33 years

- **Lead engineer | Clysar LLC**
  Jan 01, 2016 - Jul 01, 2017
- **Lead engineer/Sr. engineer | ContiTech**
  Apr 01, 2013 - Oct 01, 2015 | Westlake OH United States
- **Senior Engineer | Energizer**
  Mar 01, 1996 - Apr 01, 2013 | Westlake OH United States
- **Project Leader and Project Engineer | DURACELL, International Engineering Group**
  Mar 01, 2015 - Mar 01, 1996 | Cleveland TN United States
- **Senior Engineer | W. R. Grace**
  Jan 01, 1991 - Jan 01, 1994 | Columbia MD United States
- **Engineering Specialist | E. I. DU PONT**
  Jan 01, 1988 - Jan 01, 1991 | Wilmington DE United States

Education

- **Masters**, No Dates Provided | University of Rhode Island
- **Bachelors**, No Dates Provided | Shandong University

Skills

- **mechanical engineering** | 20yrs | 2017
- **cost accounting** | 15yrs | 2017
- **manufacturing operations** | 15yrs | 2017
- **dfa/m, fmea, tpm/rcm** | 15yrs | 2017
- **doe, spc, validation and qualification** | 15yrs | 2017
- **epcm project management** | 15yrs | 2017
- **lean six sigma** | 15yrs | 2017
- **new process design and development** | 15yrs | 2017
- **new product introduction** | 15yrs | 2017
- **plant maintenance** | 10yrs | 2017
- **design**
- **epcm**
- **fmea**
- **lean**
- **project management**
- **six sigma**
- **validation**

Work Preferences

- Likely to Switch: Unlikely
- Willing to Relocate: Yes
- Travel Preference: Up to 50%
- Preferred Location:
    - Los Angeles, CA, USA
    - San Diego, CA, USA
- Work Authorization:
    - US
- Work Documents:
    - US Citizenship
- Desired Hourly Rate: 65+ (USD)
- Desired Salary: 100000+ (USD)
- Security Clearance: No
- Third Party: No

- Employment Type:
    - Full-time

Profile Sources

- Dice: https://www.dice.com/employer/talent/profile/b6bcac4a8999d6c7df7b564c34939b282ad424b5