

Suresh Murugesan, BE, MBA, MS.

## Professional Profile

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Senior level positions in Operation / Industrial Engineering

Senior level positions in New Product Development

Senior level positions in Projects & Project Management

Total experience of 12.5 + years in PED-NPD, Operation Lead, Industrial Engineering, Manufacturing system Engineering Professional, Machining strategy, Supply chain management, Strategic projects with dynamic and proven expertise - through knowledge of new product introduction, Operation / Project management coupled with demonstrated strength in new process and green / brown field project execution. Wide exposure to various manufacturing technology, Lean tools and techniques.

- Current Designation at Tractors and Farm Equipment Ltd. Chennai – **Divisional Manager, R&D Division** from Oct 2010 to till date (**Heading PED function and Protoshop/Testing Operation / Special Projects @ R&D Division**)
- Previous Designation at TAFE Ltd, Madurai Operation – **Manager, Machining Operation** and Strategy formulation from Sep 2008 to Sep 2010
- Previous Designation at TAFE Ltd, Sembiam Operation – **Sr. Engineer, NPD Production Engineering** from May 2004 to Aug 2008.

**Company profile:** Tractors and Farm Equipment Limited, India is a member of the Amalgamations Group, South India's largest light engineering Group. TAFE, the flagship company of the Group, was established in 1961 with financial and technology participation from Massey Ferguson of world renown, manufactures of a wide range of tractors and agricultural machinery. TAFE is the second largest manufacturer of tractors in the country.

## Academic Credential

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| 2007 ~ 2008 | <b>M.Sc.</b> Manufacturing System Engineering, <b>University of Warwick</b> , United Kingdom. <u>Post Graduation</u> : <b>1<sup>st</sup> Class with Distinction.</b> |
| 2005 ~ 2007 | <b>M.B.A.</b> Operation Research & Marketing Strategy, Bharathidhasan University. Trichy. <u>Post Graduation</u> : <b>1<sup>st</sup> Class with Distinction.</b>     |
| 2001 ~ 2004 | <b>B.E. Mechatronics Engineering</b> , Thiyagarajar Engineering College, TN, Madurai. <u>Under Graduate</u> : <b>1<sup>st</sup> Class with Distinction.</b>          |
| 1998 ~ 2001 | <b>Diploma in Mechanical Engineer</b> , (DOTE) Mohamed Sathak Polytechnic, Kilakarai. <u>Diploma</u> : <b>1<sup>st</sup> Class with Honors.</b>                      |

## Professional Traits

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**Principal Member – Heading PED Function @ R&D Division** (2010 – till Date): A result oriented professional with qualitative experience in PED / Operation / Industrial engineering / Special projects - New product development in the field of Tractor Industry. Spearheaded implementation of 'STATE OF THE ART - Assembly Process, NPI process, Machining process, Proto Built process and Green / brown field project in automobile industry. Veritable competence in setting up and leading teams towards critical project implementation, providing support across multiple functions involving Manufacturing, R&D with information technology.

- PED Professional in Product Development, Supplier Development / management, Proto Development of components, Vehicle Proto build, manufacturing / assembly excellence which spreads over automotive industries.
- New Product, Process, Design and Development - Project planning, Feasibility study, estimation of assembly/machining time.
- Virtual validation of New product / Project at design stage and NPI validation of product at Proto stage.
- Expertise in Tools and Techniques like Process FMEA, Lean, 6 Sigma, Cellular manufacturing concepts, Single piece flow, Value stream mapping, Material handling concepts towards Process Improvements.
- Project lead for In-house capability improvement – STAFE OF THE ART Protoshop, RPT, Center of Excellence Test lab.
- Project lead for Infra management @ R&D – Capacity enhancement, Facility improvement and utility needs towards Lean techniques.
- CSF Project lead for 'New technology development' at R&D focusing on introduction of World-class technology.
- R&D Champion to lead and drive team to achieve Business excellence - EFQM.
- Wholly responsible for R&D Capital investment management – Preparing, Monitoring, Controlling and Effective utilization of capex fund and execution of project.
- Responsible for Design, Preparation of technical sheet, identifying the supplier and develop to meet requirements of Tools / Equipment /Machines / Test Rig/tracks etc...
- Production Facilities Planning and Procurement - Technical Review, procurement and implementation through CPED team for all new product / variant.
- Exposure in vendor development, Supplier Evaluation process, Special process Audit, supplier follow-up as per project scheduling and performance monitoring across the SCM process.
- Hands on experience in ISO/TS16949 QMS, ISO14001 – EMS System
- Excellent Communication skills and a good team leader – together to the top.

**Head, Machining & Production process – MO Operation (2008 – 2010):** Proven track record of planning, implementing, managing and delivering projects within timelines. Effective communicator with strong analytical, problem solving & organizational abilities.

- Lead & Guide team to support machining process in terms of product delivery, productivity and Quality.
- Formulation of manufacturing strategy for TAFE MO machining operation and responsible for MAKE/BUY decision for new product based on demand / value analysis.
- Hands on experience in setting up a new machine shop – Machining / Turing center.
- Design & Development of Work holding system, Jig / Fixture / Gauges / Special purpose machine.
- Implementation of Quick change over techniques (SMED), POKA YOKE in machine process
- Design & Development of machine tools / process chart / machining cycle time analysis for New Product introduction and prove out.
- Focused on Value Engineering thro Value creation / cycle time reduction
- Implementation of 5S, TPM, CFT, 7QC tools, Skill matrix in machine shop.
- Preparation and control of Capex investment and budgeting management.
- Responsible for achieving ZMD (Zero Manufacturing Defect) thro process robustness.
- Excellent resource management skills and an aptitude for innovation.
- Tooling identification for interchangeability in New products / Variants.

**Sr. Engineer – Production Engineering Dept (NPD) (2004 – 2007):** Proficient in New Product Development / Industrial Engineering using proper virtual tools and Lean techniques to enhance Factory layout & intelligent manufacturing techniques towards development of Robust process, Waste reduction, Cycle time and line efficiency improvement. Hands on experience in setting up of Best in Class manufacturing assembly line and its facility for

indigenous 4WD Front axle <40HP @ MO Operation, New Driveline assembly setup <60HP @ DBR Operation for Tractors and Farm Equipment Ltd.

- NPD Champion to ensure and guide teams to introduce new product in existing line.
- Conduct Virtual build and assess the New product design @ Proto Stage
- Define assy. process and prepare Visual Aids, process Flow diagram, Standard operating procedure, PFMEA and control plan.
- Design & Development of Tooling, fixture and equipment requirement for the assembly line, DAP approval for the equipment and prove out of manufacturing capabilities as per engineering requirement for New Project.
- Lead for all Proto Build activities at Plant level- Product concern monitoring and reporting and Closure of Process related concerns
- Design of Layout considering all ergonomics aspects / material flow and safety.
- Conduct training programme to enhance the skill of the workforce during implementation of new product and ensure assembly RFT.
- Conduct Method study and time study for the existing and the new products.
- Optimize flow and waste reduction in manufacturing system through Value stream mapping and Lean Methodology.
- Core Functional member in implementing Engineering Change Management.
- Ensuring zero process defects in the assembly line by implementing POKA YOKE.
- Hands on Experience in SAP – PP module and MM module
- Capital Budgeting and ensuring effective budget utilization through facility planning and implementation related to Layouts & Infrastructure
- Responsible for all Proto Build activities of New product and introduce in production line through 5P approach.
- Leadership of kaizen events focusing on systemic identification and elimination of the "seven deadly wastes" in manufacturing and business processes.

## **Accomplishments – Career Profession / Academic**

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- R&D Operation Lead to achieve **Business Excellence Award for Best Division Yr 2014-15**, R&D Division.
  - **Excellent Performance MSc Departmental award** in Manufacturing System Engineering @ WMG, University of Warwick, UK.
  - Establishment of '**STAFF OF THE ART – Protoshop NPI Line** and its facility at TAFE Research & Development Center'. Project Value 3.65 Crs.
  - Establishment of BEST IN CLASS New Assembly line for 4WD Front Axle Variants at MO Production centers and got **CSF Project Award from Chairman & CEO**.
  - Establishment of '**Best in Class – modular layout**' for New product driveline. Project Value 2.1 Crs.
  - Successful implementation of 'Design Studio and RPT' facility at R&D. Project Value 48L
  - Establishment of '**CoE : Center of Excellence – Testing Center** and its facility / utilities at TAFE R&D'. Project Value 9.96 Crs.
  - Development of '**New Drive line Endurance Test rig upto 150HP**' with modular concept at CoE Test Lab. Project Value 4.5 Crs.
  - Development of 'MTS make Hydraulic actuator and its controller focusing Zero Setup Changeover concept at CoE Test Lab of Project Value 2.8 Crs.
  - Development of 'Dynamometer Eddy current – 500KW capacity system and its instrument from Ms.Dynalec and AVL. Project Value of Rs.98 L
  - Design and development of 'Electro mechanical vertical height adjustment system for loading of tractors at Dyno cell' – Achieves Single Minutes Setup Changeover.
  - Successful Execution and commissioning of '**11KV Substation with 500KVA Transformer**, RMG with 2 VCB & 1 LBS and 11KV LBS'. Project Value 64 L
  - Execution and commissioning of '**Motorised 800A - 2 tier bus bar** panel with 800A ACP incomer for transformer and 800A MCCB incomer for DG'.
  - Successful Execution and commissioning of '**11KV Substation with 1000KVA & 315**

- KVA Transformer**, RMG with 2 VCB & 1 LBS / 11KV 3 Panel VCB'. Project Value 1.4 Crs. - Execution and commissioning of 'Motorised 1600A - 2 tier bus bar panel with bus coupler'
- Erection and commissioning of **500KVA** (Caterpillar) & **320KVA** (Powerica) DG Gen Set with Auto Start/Stop. Project Value 58 L
  - Effectively contribution to Energy saving thro introduction of LED technology, VRF HVAC system, VFD CL Cooling system etc. (Recurrence Saving 20L per annum)
  - Successful commissioning of utility – 150CFM Kaeser Compressor with AI pipe line, 200tr Cooling Tower, Airline line, Water line system.
  - Successful completion of identification / finalization of machining center and its tools for Challenger <52HP End reduction project at DBR Operation. (Project Value – 5.8 Crs)
  - Successful introduction of New platform Project, Advanced Transmission Project, Cost saving project at MO / DBR Operation assembly line.
  - Successful design and implementation of Work holding devices, Inspection gauges, Assembly tools/Facilities for **4WD Indigenization projects** - MO.
  - Successful completion of Certified Course
    - o Management Development Programme by Bharathidasan Institute of Management, Tricity (BIM)
    - o The Seven Habits for Managers – Managing Yourself, Leading Others, Unleashing Potential by Franklin Covey
    - o Closing the execution Gap workshop by Franklin Covey
    - o Program on Management Tools – Finance by Institute for Financial management and Research (IFMR)
  - Successfully conducted critical QFD studies with team for Challenger model 42/47/52 HP, End reduction concept project at Northern Part of India.
  - Undergone intensive tractor training program in "Product Training Center, TAFE" on various tractor models / sub assembly and their functions.
  - Participated in "Creative thinking program" conducted by M/s TAFE, Chennai.
  - DFMA, Training & Practical sessions by Mr. Slinger, WMG Consultant.
  - PFMEA, Training & Practical session by Mr. James Miller, WMG Consultant.
  - **State level 1st price** for "Electronic Controlled One Axis - Solar tracking system" awarded by TNSCST.
  - Secured **College First** in Diploma in Mechanical Engineering (DOTE) Mohamed Sathak Polytechnic, Kilakarai. (**91.33% with honors**)

## Personal Vitae

Fathers Name	:	N Murugesan
Address	:	#63/17 VOC Nagar Main Road, Anna Nagar East, Ch-600102.
Date of Birth	:	24 <sup>th</sup> April 1983
Nationality	:	Indian / Hindu
Marital Status	:	Married
Language known	:	English, Tamil.

## Declaration

I declare that the information and facts stated above are true and correct to the best of my knowledge and belief.

Place : Chennai / 24.03.2017

SURESH MURUGESAN

## Reference:

Mr. Sanjeeve Balan, Sr. General Manager & Head CPED, TAFE / +91 9944 929 839  
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 Mr. R Murali, Div. Manager – Chairman's Office / +91 9840 188 479