

KARTHICK SUBRAMANIAN MURUGAN

PERSONAL DATA

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PROFESSIONAL SKILLS

Process: Rubber Compounding, Plastics Processing, Pultrusion
Testing: Polymer Rheology, NDT for Composites, Failure Analysis of Polymers
Instruments: DMA, DSC, FTIR-ATR, TGA, TMA, SEM-EDX, GC/MS
QMS: AS9100, ISO9001, ISO14001, ISO45001, ISO18001
Head Protection Standards: EU 2016/425, AS/NZ 1801:1997, ANSI Z 89.1(2019), EN 397
Face Protection Standards : EN 149:2001+A1:2009, EN14683, NIOSH N95, ANSI Z87.1, ANSI Z88.2
Hand Protection Standards : EN 388, ANSI 105

WORK ACHIEVEMENTS

JAN 2022 - CURRENT	Technical Manager at Mallcom India Ltd Design and development of entire product range of PPEs. Exposure to wide category of materials - Thermoplastics, ABS, LDPE, HDPE LLDPE, PP, Nylon and rubbers. Innovation using 3D printing and reverse engineering methods. Handled polymer processing operations such as injection moulding, double density PU injection. Proficient in conducting trials and testing for NPD applications. Involved in obtaining certifications for PPE's against EU, ANSI and AS/NZ PPE standards. Technical lead for development and certification of safety helmets for TTI - Milwaukee and safety gloves for TTI - Ryboi
JUN 2019 - DEC 2021	Technical Manager at The Bhor Chemicals and Plastics Pvt Ltd Development and certifications of composite intermediates such as carbon fabric, epoxy resins, carbon epoxy prepregs, cultured carbon laminates against aerospace, defence and space markets. Identification of defects in the laminates by NDT methods. Testing of cultured laminates for its performance properties. Developed different symmetric and asymmetric cross sectional laminates for different set of industries such as UAVs, drones and Quadcopters. New product development in thermoset composites such as conductive epoxy prepregs, cyanate ester prepregs manufactured by holt melt process.
JUN 2014 - JUL 2016	Senior Officer at The Supreme Industries Ltd Carried out formulation development for foams from poly olefins. Development of formulation for high tenacity yarns through extrusion process.

LANGUAGES

ENGLISH: Professional working proficiency

HONOURS

MAY. 2018 M.Tech - First Rank Holder at the University Level

JAN. 2010 State First Rank Holder at the final Diploma examination

INDUSTRIAL TRAINING

JUN 2018 - MAR 2019	Research Intern at Carborundum Universal Ltd Responsible for carrying out new product development of rubber components.(Business Value: 4 crores INR yearly). <i>Outcome: Added an unconventional product in the portfolio of abrasive manufacturing company.</i>
DEC 2017 - MAY 2018	Research Intern at TVS Tyres Ltd. Novel research focused on clean and energy efficient method of the coupling of silica with simple reagents to improve silica's affinity towards diene rubbers. <i>Outcome: This project is in patent filing stage.Patent No: 201941026313</i>
NOV 2013 - APR 2014	B.Tech Project Work - CIPET Design and validation of polyacetal based bio medical components used in orthopaedics to replace metal parts using 3D printing. <i>Outcome: User friendly and cost effective product for the patients</i>
MAY 2009 - SEP 2009	Apprenticeship Training at Fenner (India) Ltd Monitoring the process of rubber mixing operation using PLC-SCADA. <i>Outcome: 20% increase in the productivity and zero defect compounds</i>

EDUCATION

AUG 2016 - MAY 2018	M.Tech in RUBBER TECHNOLOGY - CGPA: 8.5/10 Madras Institute of Technology Thesis: 'Microwave assisted Solid State Functionalisation of Rubber-SBR (Solution Type)'
MAY 2012 - APR 2014	B.Tech in PLASTICS TECHNOLOGY- CGPA:7.87/10 Central Institute of Plastics Engineering and Technology Thesis: 'Design and Development of Adjustable Plastic Pylon for Lower Limb Prosthesis'
JUNE 2008 - JAN 2010	Diploma in POLYMER TECHNOLOGY-CGPA:86.5/100 Tamil Nadu Government Polytechnic College CGPA: 86.5/100