



Invent Solutions Private Limited

COMPANY PROFILE

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Invent Solutions Private Limited

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1 INTRODUCTION

Invent Solutions Private Limited is a Research and Development company. It was incorporated in 2003.

We provide engineering services and solutions in the field of Embedded Systems.

By designing solutions for client specific requirements, we have proven our credentials in varied fields such as health, automotive, industrial controls, textile etc.

We have undertaken various problem analysis and concept development tasks for our clients. We have vast experience with different micro-controller and processor architectures. This has enabled us to provide appropriate and effective solutions. We are continuously experimenting with new technologies enabling us to provide cutting edge solutions.

We have built strong relationships with our clients because of our sincerity, adherence to ethics and maintenance of strict confidentiality. We have detailed our capabilities in the following sections. Please feel free to get in touch with us for further clarifications. We are eager to support you in your future endeavors. We thank you for this opportunity.

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2 SERVICES OFFERED

2.1 MACHINE DESIGN AND CONTROL

We design new machines and redesign/revamp existing machines, based on our client's requirements. We put extra efforts to understand the nuances in our client's field of Engineering and have designed next generation machines which have enabled our clients to beat competition and move ahead in the market. We have replaced conventional mechanical designs with state of art electronic control mechanisms. We have remodeled and redesigned mechanical designs to improve performance and productivity.

Clients: Veejay Lakshmi Engineering Works, Coimbatore, India.

2.2 INDUSTRIAL AUTOMATION

We provide industrial automation solutions that handle process control, monitoring, management and diagnostics. We have built systems to collect data (data acquisition systems) from industrial processes, store, process and derive business intelligence out of it. We have experience with Distributed Control Systems based on TCP/IP, CAN, LIN, Modbus, profibus and other industrial communication protocols. Our systems are built keeping the larger picture in mind, and can seamlessly integrate into enterprise wide ERPs and SoA style infrastructure.

We also specialize in designing sensors according to client specification using standard transducers.

Clients: Devi Polymers Private Limited, India.

2.3 HUMAN MACHINE INTERFACE (HMI) SOLUTIONS

We offer highly customized (both software and hardware) HMI solutions. They are highly intuitive and graphically rich that is well suited for industrial environments. They are designed to enhance productivity and show case a high degree of user friendliness. Our HMI software is portable (across platforms) and hence gives the client the liberty of switching to a newer and cheaper hardware platform at a later stage. We have experience developing both keypad based and touch-screen based interfaces on platforms ranging from GNU/Linux, WinCE (5,6), FreeDOS to no operating system (raw on the core).

2.4 CONSUMER ELECTRONICS

We design and develop computing devices (both desktop and portable) that can be used as PoS (Point of Sales) terminals, billing devices, kiosk stations, Mobile Internet Devices (MID), Portable Media Players (PMP) etc. We also provide platforms (hardware design, board support packages and software development stacks) based on GNU/Linux, WinCE (5,6) etc., that can be used to develop devices for such purposes. We have worked on low power wireless devices based on RF and RFID, communicating using standard protocols such as SimpliCI, Zigbee

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etc. as well as in-house designed protocols, that integrate with our handheld and centralized devices, for the airlines and hospitality industry.

2.5 AUTOMOTIVE SOLUTIONS

We have been very active in the automotive industry. We specialize in designing embedded controllers for automotive motors, alternators, body electronics and electronic control units. Our designs have been used in automotive testing equipments, cars, heavy vehicles, trucks and electric bicycles. Apart from product design we also assist our clients to realize their innovative concepts and ideas.

This helps their engineers to focus on their fields of specialization rather than on embedded development.

Clients: Lucas-TVS, India.

2.6 ELECTRICAL DRIVES AND POWER SUPPLIES

Most of the solutions that we have offered to the clients require the control of motors as a part of the solution. We have offered Electrical Drives for motors such as Induction Motors (Single Phase and Poly Phase), Stepper Motors, BLDC Motors, Servo Motors etc. with power ratings ranging from 100 watts to 20 kilowatts. We ensure that the Total Harmonic Distortion available at the Motor Phase is kept to the minimum. Based on the requirements, features such as Regenerative Braking and Resistive Braking are often implemented in the design. Our drive designs have been based on 8 bit Micro Controllers to 32 Digital Signal Processors, thus showcasing our capability to tailor make the design to suit the client's cost and design requirements. These designs are often accompanied with communication interfaces such as CAN, LIN, Modbus, Profibus, LAN to enable control of the drive from a centralized system. We have numerous industrial and commercial grade Switched Mode Power Supply (SMPS) designs to our credit. Our designs are highly energy efficient and comply with Energy Star requirements.

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3 CLIENT REFERRALS

3.1 VEEJAY LAKSHMI ENGINEERING WORKS LIMITED

To whom it may concern:

Respected Sir/Madam

Veejay Lakshmi Engineering works Ltd is a manufacturer of textile machinery for the last three decades with its manufacturing facilities located at Coimbatore, India.

Veejay Lakshmi, for its product development/upgradation during the last two years has been engaging Invent solutions Pvt. Ltd. Chennai, for its expertise in designing state-of-art electronic hardware and developing software for enabling the same.

We have observed Invent Solutions have a wide understanding and up-to-date knowledge of electronics. They have also been able to adapt their expertise suitably in the field of textile technology engineering within a short period of time.

Invent solutions have taken all the extra efforts to understand the basic fundamentals of textile technology. This has helped the integration of electronics and software Textile Technology and Mechanical Engineering.

In our opinion, Invent solutions have the capability of taking up any project involving new electronics/hardware/software designing and adapting the same to suit any field of application successfully in a time bound manner.

Yours faithfully,

For VEEJAY LAKSHMI ENGG WORKS LTD

J .Anand

Managing Director

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3.2 TIGERTECS GMBH ENGINEERING, GERMANY

To whom it may concern:

Dear Sirs or Madams

Reference Letter

If you are looking for a team that supports you in solving and electronic or mechatronic problem that Invent Solutions Pvt. Ltd. is definitely the right partner. The young highly motivated team of experts in various fields likes new challenges and will definitely find a solution for your application, too.

We, the TigerTecs GmbH Engineering + IT Solutions is successfully cooperating with the Invent Solutions Pvt. Ltd. in different projects since more than two years now.

Yours sincerely

Dr.Chirstoph Uhrhan
Managing Director
TigerTecs GmbH

www.tigertecs.eu

3.3 MEMSTECH, USA

To whom it may concern:

Dear Sir/Madam,

Memstech USA is a leading sensor manufacturer involved in the design and manufacturing of various transducers. We have manufacturing operations at Singapore and sales & engineering support facilities in USA. Our product range caters to Automotive, Industrial and commercial markets. We have established technical sales channel in India by teaming with Invent solutions which is in the business of providing technical services. They will be a value added reseller for our sensor products that includes IR Camera, Pressure sensors, accelerometers& microphones. We are pleased to work with Invent Solutions on these projects.

Sincerely,

Srini Naidu
Executive Director
Memstech USA

www.memstehch.com

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