





ABOUT US:

Begapt is a Customized Solution provider House partnering with a large network of manufacturers, distributors and researchers with the common goal to provide global, advanced and innovative solution to our customers. Combining software expertise with application integration we offer a unique service in - that of system supplier and system integrator - giving us unparalleled expertise and experience in technology for test equipment developments. Our systems are some of the most innovative and advanced Test & Measurement solutions in the field of Vision, Control, Signal Processing, Embedded & Motion developed on National Instruments (NI)-LabVIEW platform successfully deployed in many places including Industries & Research Institutions. Our solutions enable manufacturers to realize significant economic paybacks by increasing the quality of manufactured parts and improving the productivity of manufacturing processes.

For more product information visit www.begaptsolutions.com or [contact us](#).

Our systems are successfully deployed in:

- Automotive Industries
- Pharmaceutical Industries
- Defence Labs & Research Establishments
- Educational Institutes



MACHINE VISION

-Innovative Vision Systems

Machine Vision solutions by Begapt help companies improve their manufacturing quality and performance by eliminating defects... verifying assembly; Tracking and capturing information at every stage of production to make sure the entire process is completed correctly. Smarter automation using our technique means fewer production errors...and that means lower manufacturing costs and higher customer satisfaction.

We have developed diverse set of Machine Vision Solutions & Products that serve multiple industries. It is very likely we have a solution that meets your requirement.

Integrated Systems: Complete, turnkey inspection solutions installed as a standalone application, or on existing automation. Machine vision solutions from Begapt feature a complete performance guarantee.

Engineering Services: Machine vision consulting, project management, programming, installation, and training.

Regardless of the industry, if production and quality criteria can be seen, then machine vision far surpasses the ability of a human to see that criteria.



Test & Measurement -Test Everything Possible

Begapt is familiar with advanced system architectures and techniques suited for test & measurement and automation for the whole gamut of industries. We have over the years developed expertise in application software development for Test & Measurement and automation. Our software designs are built for scalability and increased functionality. Our systems guarantees maximum accuracy of measurement results and enables optimization of the complete product life cycle: from the development through the testing stages, as well as in manufacturing and production.

Apart from above; we also provide offshore outsourcing services for software development and validation testing.

From Sensor to software,
we provide you the
complete measurement
chain

We work closely with the
customer during all phases of
the project life cycle involving
in developing:

- Off the shelf products
- Custom solutions
- Software projects



AUTOMATED TEST EQUIPMENTS

Begapt specializes in the design and development of world-class automated test equipment for a diverse set of applications. We have successfully addressed the differing test equipment needs, from both small firms, industry giants and research institutions.

The Begapt team comprises of well-qualified engineers from diverse engineering background. Our capabilities allow us to combine software, custom electronics, off the shelf and custom measurement and test equipment, programmable power supplies, real-time controllers, PLC's etc, into a unique and cost effective solution.

We have developed several ATE for testing the functional performance and life cycle requirements of various products.

We offer:

- Off the shelf products for Machine Vision and Test & Measurement requirements
- Retro fit systems for already established Lines
- Custom system development based on individual requirements
- Software development and R&D support

OUR PRODUCTS:



Fuse Box Inspection System:



A fuse box consists of fuses of different colour and rating which are to be placed at designated places. However, sometimes the colour coded fuses are not placed in their designate places during the assembly of the fuse-box. This is a defect in the finished product which needs to be identified and corrected. We are suppliers of vision based Inspection systems for checking correct positioning of Fuses & relays on the wiring Harness to all leading Wiring Harness OEM in India. The supplied system comprises of - Industrial cameras; pneumatic arrangements; digital control cards etc. The software has OCR technology for character recognition as well. For more product information [contact us](#)

Relay Checker:



Relays are part of the harness; due to some manufacturing defects or otherwise some of the relays within the harness are at some instances non- functional. A PC based system thus is used for checking whether all relays within the harness are functional or not. It is an online system wherein all relays are tested at once and at the end-stage thus not only removing the extensive job of checking each relay one-at-a-time but also removing the human error of mixing of relays hereby ensuring total compliance. For more information; Download the catalogue or [contact us](#)

Dummy Seal Checker:



In connector of the harness; seal is inserted in vacant position, some time seal are not inserted properly which is a problem. Leak testing is performed to check whether the dummy seals are inserted properly or not; vaccum test are performed to determine any seal leakage. Our systems are modular and expandable coming in various models depending on number of ports to be tested. For more information; Download the catalogue or [contact us](#)

CD Counting System:



The system uses machine vision technique to count the CD and Blue Ray wherein these are exposed through the Lighting System designed for this application. The camera grabs the image of discs and sends to the controller which is analyzed by the software and the result displayed on the monitor. Begapt is the first and only company to have developed this type of system. The system has been developed for India's leading CD manufacturer Moser Baer and is being widely. For more information [contact us](#)

Blister Inspection System:



The system is used to ensure correct tablet filling in the blister. It consists of high resoluiton camera and dedicated lighting solution to ensure that the blister is free of any broken tablet; wrong coloured tablet; external particle; missing tablet or any dimensional mis match. The system gives rejection signal on encountering of any mismatched tablet. A machine management PLC operates the machine and manages input and output signals from the different control stations and handle the rejects station. For more information [contact us](#)

Label Inspection System



The Vision System is used in Production line for the 100% quality assurance. Vision Inspection is completely replacing Manual inspection using higher accuracy and higher speed compare to Manual Inspection. The system is capable of checking all the barcodes/pharmacodes/Batch Codes (print control OCV/OCR) on the packaging material, simultaneously through a single camera at high production speeds. For more information [contact us](#)

Automotive Cluster Inspection System:



The instrument cluster consists of four gauges for indicating speed, engine RPM, fuel level, engine temperature and an LCD display. The challenge of reliability and cost effectiveness was realized with a design that had no moving parts and a high throughput was achieved through parallel calibration and inspection of all the gauges within the instrument cluster. The application software was designed to allow the user to configure all the programmable features of the cameras thus increasing the flexibility of the system. For more information [contact us](#)

CUSTOMIZED SOLUTIONS:

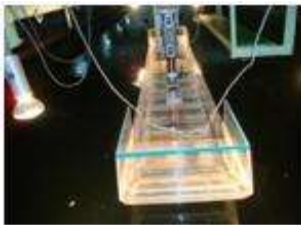


Crimp Stress Dynamic Machine:



Our customer for this solution is a leading OEM manufacturer of automotive wiring harness. The customer wanted to measure crimp resistance of the wire during dynamic testing. 16 wires were connected with one end crimped and stripped at centre and given controlled oscillatory movements. Resistance data with variations of Milli-ohm was thus recorded and stored at repeated interval of time. NI-PXI system; servo motors; LabVIEW apart from various other electronic circuitry was used in unison to create a flexible system. For more product information [contact us](#)

Data Acquisition System for Ship Hydrodynamics Lab:



We were engaged by IIT-Kharagpur to develop Data acquisition system for Ship Hydrodynamics Lab. The challenge was to design a system with which uniform velocity of towing carriage could be achieved in shortest possible time and real time data of different parameters of ship model like water resistance, angle of trim, height, thrust, torque and speed of the towing carriage could be measured with precision. The supplied system comprises of - Digital drive arrangement and a data acquisition unit. The digital drive can be controlled through the PC & speed of the drive is set through software. Once towing carriage achieves uniform velocity; different parameter of the ship (water resistance, angle of trim, height, thrust, torque etc.) is acquired for particular time period at very high sample rate. After acquiring; analysis of data is done by the software. For more product information [contact us](#)

PC based Synchronization of Two Alternators:



We were engaged by a leading educational institute to develop a system for PC based synchronization of Two Alternators. This system consisted of voltage and frequency transducers; data acquisition cards; signal conditioning and other additional circuitry. The conditions for parallel operation; terminal voltages of each alternator; frequency of EMF generated in each and phase sequence of each alternators are read through the system and when all parameters are equal, the system is put on parallel through the icon provided in the PC. For more product information [contact us](#)

Create your Own Custom Automated Test Equipment:



We can design and create your custom automated test equipment- Test & Measurement as well as Vision Based. If you have a process that requires testing, you can reap the benefits of automated testing by letting us design and build a complete system for you. You can take subjectivity, human error, unrepeatable test results out of the picture, and at the same time save on labor and have your technicians be more productive. Call us today and see how we can help.

For scheduling a project study or discussing your requirement [contact us](#)



ACADEMIC & RESEARCH:

The critical issue in modern engineering education is to provide the industry with an influx of graduates understanding the internal working of modern reactive and time-critical systems where the computer software meets the hardware. Most of the real-life applications require knowledge of not only developing algorithms and programs, but also using the system resources, connecting to non-standard devices, and smoothly integrating with the operating system.

We partner educational institutes to provide Industry oriented Real-Time lab set-ups to make the student work on the latest technology and processes available. The objective of the real-time Lab Set Ups is to present basic real-time concepts and teach students to develop programs. The concepts of timing, concurrency, inter-process communication, resource contention, priorities, and input/output are discussed in a format providing background, example, and the follow-up experiments. The laboratory infrastructure is designed to promote an asynchronous and discovery-based learning environment.

REAL TIME INDUSTRY ORIENTED LABORATORY SET-UPS:

- MACHINES LAB
- TEST & MEASUREMENT LAB
- MACHINE VISION LAB
- BIO-MEDICAL
- PROCESS CONTROL LAB
- MECHATRONICS LAB

CUSTOM SOLUTIONS:

- RESEARCH ASSISTANCE
- SOFTWARE DEVELOPMENT
- USER DEFINED PROJECTS

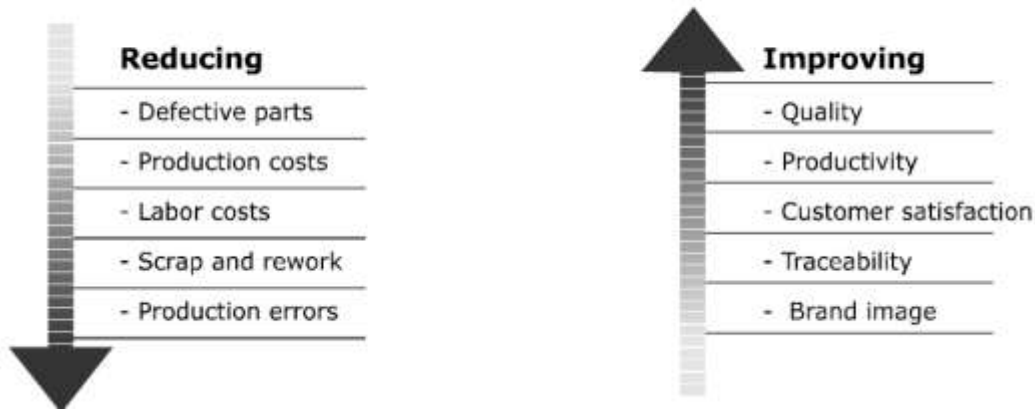
TRAINING:

- LabVIEW
- MACHINE VISION
- INSTT. & CONTROL

FLEXIBLE SYSTEMS FOR YOUR NEEDS

We pride in providing the best of system each time On-Time. It is our endeavor to give you the flexibility in having the system exactly as you want keeping into consideration the local environment and working conditions so that you have the best each time.

We help clients identify significant opportunities and execute successful solutions by:



TRAINING AND SUPPORT

SUPPORT:

In addition to the hardware and software we can supply, we pride ourselves on delivering top quality support to our customers. We provide round the clock support when required besides periodic visits to the site for fault preventive checks; calibration and installation commissioning jobs.

Our philosophy is based on providing the ultimate in customer satisfaction, thereby generating sales from commendations and repeat business.

Our highly motivated teams of specialists are ready to respond to your application questions; you may get in touch with your need.

TRAINING:

Prior to accepting an order we would normally perform trials with various systems in our laboratory and then deliver a proposal to the customer. We will then train production staff and supervisors/maintenance engineers. By giving our customers training on the systems they are able to take 'ownership' of them and feel comfortable in using them. This ensures that our customers are happy with our solutions prior to commissioning.

QUALITY CONTROL:

We follow our ***Passion for Excellence***. We are in continual improvement process for all phases of our business. It is essential for all levels of our organization to strive for excellence and continual improvement in quality to maintain our competitive edge.



Our Valued Customers:



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