

# COMPANY PROFILE

2009 - 2010

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[www.insuindia.co.in](http://www.insuindia.co.in)

## INSTRUMENTS UNIVERSAL



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## About Us

**Instruments Universal** was established in **1980**. Today we have evolved into a high-technology organization with core competencies in Industrial Automation & system integration. Over its *25 year history*, Instruments Universal has gained a reputation for quality, reliability and core value among its clients.

Inheriting a legacy of pioneering technology and expertise in effluent sampling automation *since last 25 years*, in 2000 Instruments Universal decided to redefine the business of Digital Control and Industrial Automation through a value-added approach of systems integration by creating a separate project division for embedded system & IT solution development. Since then the business activities in the division has been growing steadily.

Instruments Universal provides complete automation for jobs with customized PLCs, SCADA etc. depending upon the requirement. Through our manufacturing base and affiliated product range, we can provide the entire range of I/O modules, Controllers, Remote Display Units, HMI/SCADA Software products as well as customized product.

**Instruments Universal has a team of Electrical, Mechanical, Electronics engineers, embedded system software developers, technicians** and a trainee working for new product / project development & manufacturing work.

Mr. Manoj D. Kapadia (Partner) and Mr. Paresh J. Choksi (Partner) and Divyang M Kapadia are working partners of company. Mr. Manoj D. Kapadia & Mr. Paresh J. Choksi having more than twenty years of experience in system engineering at India's largest fertilizers and petrochemical complex GSFC Ltd., Vadodara. Mr Divyang Kapadia has work in fortune 100 company M/s TCS and M/s Jopasana International who are the serviced provider of M/s VODAPHONE, M/s Nissan Motors and FORD Motors.

Company has a team of engineers in his R&D Department for providing cutting edge technical solutions. We have a team of engineers of B.E Power Electronics and have lots of experience on design & development of embedded systems & customized solutions. Our teams are good at MCS51 series, ST7 series of microcontrollers, assembly language, C, C + +, Visual Basic, Java & working for company since last six years. Our Team has taken a special training on **32 bit ARM processor** at *BANGLORE* and successfully completed the course of **Embest University**. The team also attended a *Masters Conference* of **Microchip** for PIC controller. His strength is to work on diverse platforms like different microcontroller, languages, assembler, cross compilers, and different development tools (Emulators, Debuggers etc.).

[1]Mr. Bhavesh Shah (Diploma in Electrical Engineer.) He is serving the organization since last 15 years. He has very good experience of product manufacturing, product testing. He is license electrical supervisor. He has very good working experience as a service engineer.

[2] Mr. Bipinbhai Sukla (Diploma in Electrical Engineer.) He is serving the organization since last 10 years. He has very good experience of product testing and also he is very good experience as a service engineer.

[3] Mr. Kushal Kapadia He is working as a software engineer. He is developing all type of software attached to micro controller base instruments.

[4, 5, 6, 7, 8] Mr. Bhavesh Akabari, Tushar Vasava, Dinesh Parmar, Harshad Vaghela & Dharmendra Solaki are working in product assembling line and they are involved in finished product testing and installations.

By its work committed staff & good infrastructure, Company has capability of in-house design, developing & manufacturing different products with software, hardware, mechanical and plastic molding part at its own premises at **Baroda Electronics Industries Compound , ChhaniJakat Naka, Vadodara.**

Instruments Universal believes in the continuous enhancement of the technical & managerial skill of its employees. It is their net learning that supports the growth of the team & the various projects handled by it.

Instruments Universal has been achieving an average growth of 25 percent annually. The criteria of the success of our projects is the customer's confidence, providing optimum, innovative and cost effective solutions leading to repeat orders.

In year of 2003 instruments Universal has successfully developed & completed an in-house innovative solution for street lighting application. We have supplied more then 225 units to Vadodara Mahanager Seva Sadan, more then 80 Instruments to M/s G S F C and more then 25 units to M/s Reliance (IPCL Vadodara ) I O C L , and Sardar Patel Nagar Seva Sadan. In yare 2006 we have received the order from M/s Pune cantonment board for the Automation and Energy Saving Intelligent Streetlight Controlled for there entire cantonment area. Total order value is of Rupees **1.07 cores**, It provides guarantee energy saving of 30% with GSM based remote monitoring and controlling. This offers much better features then the international products of its range.

In year 2008 we have recived the order form Vadodara Mahanager Seva Sadan for GSM based remote monitoring and controlling energy saver unit with Uniform Lighting for there Central lighting Project for new Road.

### **Our goals are...**

To become an internationally recognized company in the field of Automation and IT  
To remain a reliable and preferred partner in our customer's growth  
To supply Automation and high-tech information technologies worldwide  
To continuously support the advancement and know-how of our employees

Besides dynamic growth, our team is characterized by its exceptional stability. This is result of a well developed company culture and a highly motivated team of engineers

### **Project software development**

Instruments Universal provides software development services to meet specific business needs. You can utilize our skilled technical personnel to design and develop innovative solutions. The criteria of the success of our projects is the customer's confidence, providing optimum, innovative and cost effective solutions leading to repeat orders.

### **We can assist with you...**

- Software & Hardware expertise
- Skilled technical resources
- Ongoing technical support
- On-site implementation and training
- Cost effective solutions
- Local client servicing

## Our strength

- Customer Knowledge
- Emphasis on high quality
- Latest technology
- Transparency
- Team work
- Optimum solutions

## We provide complex solutions, including

- Studies, analysis, designs, consultations, installation, Training, maintenance support
- We also offer solutions for Control systems
- Solutions in the area of Process Automation
- Control and monitoring systems
- Communication systems and instrumentation
- Professional consulting services

## **Our Products:**

- [01] Range of Effluent samplers
- [02] Micro Dosing pumps
- [03] Customized PLC , I/O modules
- [04] Range of Timers, Counters
- [05] On/Off Controllers
- [06] Microcontroller based switching systems for plastic packaging machine
- [07] Microcontroller based Auto Defroster
- [08] Metal Polisher INSIPOL-2000
- [09] Microcontroller based RS485 MODBUS Digital I/Os
- [10] Microcontroller based Street Light Controller
- [11] **Wireless** operated data acquisition and other systems
- [12] Microcontroller based fire alarm systems

## **Some other projects:**

-  SMS (On standard GSM mobile) based remote controller for street lighting application.
-  Fire alarm system.
-  Ac Cyclic unit with software connectivity.
-  Machine Automation (Plastic Packaging Machinery)
-  Machine Automation (Textile Machinery)



## [2] Sampling Automation



Accurate, reliable sampling and proper analysis are the two basic requirements of any industry to take remedial action for pollution free effluent discharge system. In spite of having very accurate and costly equipment and well-trained staff for analysis, many industries fail to restrict the level of pollution in effluent to the required standard due to high level of errors and limitation in manual sampling. And save man power too. Looking into the general need of various industries INSTRUMENTS UNIVERSAL has developed AUTOMATIC INTERVAL SAMPLER an import substitute for reliable and accurate sampling of effluents. We have sold more than 900 sampling systems through out india in all

segments of industries.

Two category of sampler one Composite sampler with one container, Composite sampler with shift wise container for analysis the sample one or three per day second one is Discrete sampler of 12 or 24 sample container for each sample analysis for critical process. All sampler with optionally available with refrigeration systems for VOC, COD / BOD requirement. Also above units are available optionally with battery operated systems for remote sampling or where power supply is not stable.



**IU 201 APF** is flame proof composite sampler. It can collect the sample from open trench / channels, even from the depth of 25 feet without any sort of priming. Select sampling volume and sampling cycle of 15,30,60 or 120 minutes. Auto purging systems. It is a Flameproof version of model IU 801 AP. (First time in India we got approval for flame proof sampler)



All above units are available optionally with refrigerated compartment for collected samples which keeps the sample at 4 +/- 1 degree C specifically for VOC, COD/BOD requirement. Also above units are available optionally with battery operated systems for remote sampling or where power supply is not stable. It is designed for more than 36 hours of sampling without power and system is designed with inbuilt intelligent charging systems for better battery life.

## **Centralized multi point sampling system**



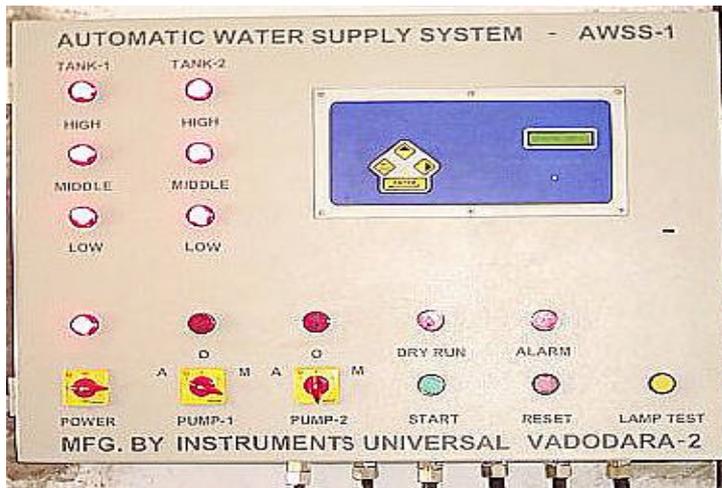
The unit consists of two control systems IU 802 AP 1- 3 and IU 802 HP 3 - 3 refrigeration systems, 12 sample container of 5 liter carboy, sample distribution solenoid vales, sample flushing solenoid valves and peristaltic sampling pump house temperature sensor for incoming sampling line, house in a sturdy industrial M S box with powder coating cabinet and Refrigeration compartment with in S S.

It also designed with the computer in RS 485 connectivity and software for temperature data and parameter updating from computer. The unit also has facility of humanization of collected sample. (Installed at Common Effluent Treatment Plant at Ankleshwar Chemical Zone supplied to M/S L & T )

### **Features**

- 1) Self priming, corrosion free peristaltic pump
- 2) Collect sample from 25 feet depth
- 3) High pressure systems for pressurize discharged line.
- 4) Advance micro controller base systems for accurate volume and time.
- 5) Real-time base sampling mode.
- 6) Auto purging systems.
- 7) Whether proof cabinet.
- 8) Designed for all type of industries,
- 9) High intake velocity (Optional).
- 10) Flame proof (Optional).
- 11) Battery Operated (Optional).
- 12) Refrigeration for VOC, BOD or COD requirement (Optional).

### [3] Automation for water supply system



Real Time, microcontroller based water supply system with close loop controller. It has real time clock with battery back of 8 years and will switch on & off the pumps with monitoring level in tanks and custom programmable time with keeping ON for decided time incase of power fail or inlet water availability. It also incorporates dry run protection for pumps. Installed at HWP Danteshwar and Nizampure colony.

This systems is very useful for colony and Municipal Corporation which saves water, electricity and avoids mal practice. It is optionally available with GSM connectivity for changing the parameter remotely for multi location systems in corporations.

### [4] INSIPOL - 2000 (Portable Electrolytic Polisher/Etcher)



In – situ metallography has become one of the important NDT tool for industrial inspection system. We introduced INSIPOL-2000 , a unique portable Electrolytic Polisher/Etcher with advanced control system and ease of operation to meet this demand. The INSIPOL- 2000 is designed to help practicing metallurgist to overcome practical difficulties. ABB, IGCAR, L&T, IIT Khargpur, BHEL, GSFC etc are some of our satisfied customer of INSIPOL-2000. Very use full instruments for life assessments of equipments.



## [6] Display Board systems



SR. NO.	DR'S NAME	TOTAL PATIENT	CURRENT PATIENT	AVAILABILITY
1	DR. P. DAS	132	323	N
2	DR. S. K. DAS	377	345	N
3	DR. S. K. SACHDEVA	123	327	N
4	DR. (MRS) S. HANDA	313	307	N
5	DR. (MRS) S. PARANJPE	123	323	N
6	DR. (MRS) JANE THOMAS	373	334	N
7	DR. THOMAS GEORGE	347	352	N
8	DR. (MRS) PRANITA DAS	333	325	N

(multi color) system is under development.

Designed and supply various type of stand alone Display board and centralize computer interface multiple display systems as per customer requirement.

Display size from 2 inch to 8 inch or as per requirement. Provides interface for serial port interface with computer and analog input systems with 4 to 20 ma systems.

Graphical and animated display

## [7] Precision Temperature Bath



Precision Temperature bath designed for precise research work and it is to maintain absolutely steady and uniform temperature in bath with the stability of  $\pm 0.1$  degree centigrade in entire range of 5 degree to 90 degree centigrade.. It is available as per customer requirement. It has inbuilt with digital & capillary type over temperature protection and specially humidity resistant molded stainless steel heater coil & stainless steel circulator body.

## [8] Universal Dispensing/dosing pump



Tubing pumps i.e. **peristaltic pumps** are being used successfully in many industries like food processing, Pharmaceutical, chemical, laboratories for research, agriculture and water treatment. It is specifically used for dispensing, sampling, filtration, and general fluid transfer. Dosing pump is ideal for pumping abrasive as well as corrosive liquids. Considering general industrial requirements can give best result along with long tube life and less maintenance. All parts of pump are indigenously developed. Tubes, which are used in this, pump available in our country. Silicon tubing is used in this pump, which has long self life. We have wide range of pump with advance microcontroller base technology with precise and high accuracy. We supplied as per customer specifications.



### Applications of Dosing Pump

- 1) Food / pharmaceutical processing where **sterilization media dispensing** Require.
- 2) Acid / base dosing.
- 3) Hot liquid transfer.
- 4) S M F battery manufacturing.
- 5) Printing ink transfer.
- 6) Acid filling in new battery installation and removing acid from battery while Maintenance.
- 7) Sugarcane juice sampling. Chemical additive pump.
- 8) Chemical dosing in batches processing.
- 9) Ideal for the Lab or Plant.
- 10) Pulp quality monitoring.
- 11) PH control of effluent.

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***One Stop Automation Solutions***



THE INTERNATIONAL CERTIFICATION NETWORK

# CERTIFICATE

IQNet and its partner

**CISQ/RINA**

hereby certify that the organisation

## INSTRUMENTS UNIVERSAL

15/B, BEI COMPOUND, OPP MONA TILES, CHHANI JAKAT NAKA, VADODARA - 390 002, INDIA

in the following operative units

15/B, BEI COMPOUND, OPP MONA TILES, CHHANI JAKAT NAKA, VADODARA - 390 002, INDIA

for the following field of activities

DESIGN, MANUFACTURE AND SUPPLY OF ENERGY SAVING EQUIPMENT FOR STREET LIGHTING & GENERAL LIGHTING  
AND AUTOMATIC INTERVAL SAMPLERS FOR EFFLUENT SAMPLING

has implemented and maintains a

## Quality Management System

which fulfills the requirements of the following standard

**ISO 9001:2000**

Registration Number: **IT-63666**

First Issue : 2008-09-11

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René Wasmer

President of IQNET



Gianrenzo Prati

President of CISQ

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**RINA**  
www.rina.org

**CERTIFICATE No. 18505/08/U**

IT IS HEREBY CERTIFIED THAT THE QUALITY MANAGEMENT SYSTEM OF

**INSTRUMENTS UNIVERSAL**

15/B, BEI COMPOUND, OPP MONA TILES, CHHANI JAKAT NAKA, VADODARA - 390 002, INDIA

IN THE FOLLOWING OPERATIONAL UNITS

15/B, BEI COMPOUND, OPP MONA TILES, CHHANI JAKAT NAKA, VADODARA - 390 002, INDIA

IS IN COMPLIANCE WITH THE STANDARD

**ISO 9001:2000**

FOR THE FOLLOWING FIELD(S) OF ACTIVITIES

EA:19

DESIGN, MANUFACTURE AND SUPPLY OF ENERGY SAVING EQUIPMENT FOR STREET LIGHTING & GENERAL LIGHTING AND AUTOMATIC INTERVAL SAMPLERS FOR EFFLUENT SAMPLING

*The validity of this certificate is dependent on an annual / six monthly audit and on a complete review, every three years, of the management system  
The use and validity of this certificate are subject to compliance with the RINA document : Rules for the certification of Quality Management Systems*

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Dr. Roberto Cavanna  
(Director of Certification and Services Division)

**RINA SpA**  
Via Corsica 12 - 16128 Genova Italy



CISQ is a member of



*IQNet, the association of the world's first class certification bodies, is the largest provider of management System Certification in the world. IQNet is composed of more than 30 bodies and counts over 150 subsidiaries all over the globe.*

*For information concerning validity of the certificate, you can visit the site www.rina.org*

*Reference is to be made to the Quality Manual for details regarding the exemptions from the requirements of the standard*



CISQ is the Italian Federation of management system Certification Bodies



www.cisq.com

Form CERTIFICAZIONE 18/02

## Some of Our valued customers:

<b>Sr. NO</b>	<b>Name of company</b>	<b>Location</b>	<b>State</b>
1	Andhra Pradesh Rayon Ltd	Warangal	A P
2	B H E L ( G E )	Hyderabad	A P
3	Hindustan Zinc Ltd	Vishakhapatanam	A P
4	Jedimetla Effluent Treatment	Hyderabad	A P
5	N F C L	Kakinad	A P
6	Hindustan Paper Corporation	Jagiroad	Assam
7	I O C ( Assam)	Digboi	Assam
8	Hindustan copper Ltd	Singbhum	Bihar
9	Hindustan Aluminum Ltd	Sonbhadra	Bihar
10	Hindustan Fertilizer Corporation	Bauroni	Bihar
11	T I S C O	Jamshedpur	Bihar
12	D C M Chemical Ltd	Delhi	Delhi
13	Hindustan Ceba Guigy Ltd	Panjim	Goa
14	A B B	Vadodara	Gujarat
15	Advant Envirotech	Ahmedabad	Gujarat
16	Ahmedabad Victoria	Ahmedabad	Gujarat
17	Anil Starch Products	Ahmedabad	Gujarat
18	Atic Ltd	Valsad	Gujarat
19	Atul Limited	Valsad	Gujarat
20	B V M College Of Eng	Vallbh Vidhyanagar	Gujarat
21	Birla Cellulosic Ltd	Bharuch	Gujarat
22	Cibatul	Valsad	Gujarat
23	Cyanamid Ltd	Valsad	Gujarat
24	Deepak Nitrite Ld	Vadodara	Gujarat
25	G A C L	Vadodara	Gujarat
26	G I D C (Effluent Chenal Project)	Vadodara	Gujarat
27	G N F C	Bharuch	Gujarat
28	G S F & C Ltd	Kosamba	Gujarat
29	G S F & C Ltd	Vadodara	Gujarat
30	G S F & C Ltd Polymer	Vadodara	Gujarat
31	Gujarat Ambuja Cements	Veraval	Gujarat
32	H W P	Vadodara	Gujarat
33	Hikal Chemicals	Ankleshwar	Gujarat
34	Hindustan Lever	Kandla	Gujarat
35	I F F C O	Kalol	Gujarat
36	I O C (Gujarat Refinery)	Vadodara	Gujarat
37	I P C L	Vadodara	Gujarat
38	Indian Rayon Industries Ltd	Veraval	Gujarat
39	Intricast	Rajkot	Gujarat
40	KRIBHCO	Hazira	Gujarat
41	L & T	Hazira Ankleshwar	Gujarat
42	MANTRA	Surat	Gujarat
43	Nitro Aromatics	Vadodara	Gujarat
44	O N G C	Hazira, Chandkhed	Gujarat

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***One Stop Automation Solutions***

45	Paramount Ltd	Vadodara	Gujarat
46	Percitech Laboratories	Vapi	Gujarat
47	Prevail Cast	Rajkot	Gujarat
48	Rajashree Polyfiles Ltd	Ummala	Gujarat
49	Rama News Prints	Hazira	Gujarat
50	Reliance Limited	Hazira	Gujarat
51	Shah Dr associate	Surat	Gujarat
52	Step Marketing	Vapi	Gujarat
53	T C R Advance Eng	Vadodara	Gujarat
54	United Phosphorous Ltd	Ankleshwar	Gujarat
55	Vadodara Municipal	Vadodara	Gujarat
56	Surat Municipal Corporation	Surat	Gujarat
57	Duracell Ltd	Faridabad	Haryana
58	N F L	Panipat	Haryana
59	Nuchem Plastics Ltd.	Faridabad	Haryana
60	B A S F	Banglore	Karnataka
61	Mangalore Chemicals & Fertilizer	Manglore	Karnataka
62	Mangalore Refinery	Manglore	Karnataka
63	Mysore Paper Mills	Bhadravati	Karnataka
64	Sundram Clayton Ltd	Hasour	Karnataka
65	Hindustan News Prints	Kottayam	Kerala
66	Grasim Industries Ltd	Nagda	M P
67	ACE Turnkey Fire Protection Sys	Mumbai	Maharastra
68	Albright Morarji Pandit Ltd	Thane	Maharastra
69	B A S F	Thane	Maharastra
70	Ballarpur Industries	Chandrapur	Maharastra
71	Century Enka	Pune	Maharastra
72	Century Rayon	Shahad	Maharastra
73	Century Textiles	Mumbai	Maharastra
74	Department Of Atomic Energy	Mumbai	Maharastra
75	Dr Back	Pune	Maharastra
76	H O C Ltd	Rasayani	Maharastra
77	Herdilia Chemicals Ltd	Mumbai	Maharastra
78	Hindustan Antibiotics Ltd	Pune	Maharastra
79	I P C L	Nagothane	Maharastra
80	L & T	Mumbai	Maharastra
81	N E E R I	Nagpur	Maharastra
82	National Rayon Corporation	Mumbai	Maharastra
83	Nuclear Power Corporation	Mumbai	Maharastra
84	P I L Ltd	Thane	Maharastra
85	R C F	Mumbai	Maharastra
86	Regional College	Nagpur	Maharastra
87	Reliance Industries Ltd	Patalganga	Maharastra
88	Sandoz Ltd.	Thane	Maharastra
89	Sudarshan Chemicals	Pune	Maharastra
90	T C R Eng	Mumbai	Maharastra
91	T E L C O	Pune	Maharastra
92	J K Paper	Raygadda	Orissa
93	National Aluminum Ltd	Angul	Orissa

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**One Stop Automation Solutions**

94	Orient Paper Mills	Sambalpur	Orissa
95	Paradeep Phosphate Ltd	Cuttak	Orissa
96	N F L	Nayanagal	Punjab
97	P A C L	Ropar	Punjab
98	Hindustan Zinc Ltd	Chitorgarh	Rajasthan
99	Hindustan Zinc Ltd	Udaipur	Rajasthan
100	Shreeram Fertilizer	Kota	Rajasthan
101	Chemplast Sanmar	Chennai	Tamilnadu
102	Chemplast Sanmar	Salem	Tamilnadu
103	Cordite Factory	Nilguries	Tamilnadu
104	E I D Perry	Chennai	Tamilnadu
105	I E L	Chennai	Tamilnadu
106	I G C A R	Chennai	Tamilnadu
107	Kothari Chemicals	Chennai	Tamilnadu
108	Madras Atomic Power Station	Chennai	Tamilnadu
109	Madras Fertilizer	Chennai	Tamilnadu
110	Madras Refinery	Chennai	Tamilnadu
111	Odgen Balaji	Chennai	Tamilnadu
112	S I V Industries	Coimbtour	Tamilnadu
113	S P I C	Tuticorin	Tamilnadu
114	Shriram Fibers	Chennai	Tamilnadu
115	South India Viscous Ltd	Coimbtour	Tamilnadu
116	Sterlite Industries		Tamilnadu
117	Tamilnadu Petro products	Chennai	Tamilnadu
118	Duarala Sugar Works	Duarala	U P
119	I E L	Kanpur	U P
120	I F F C O	Allahabad	U P
121	I F F C O	Baraily	U P
122	I F F C O	Onla	U P
123	Shimbhaoli Sugar Ltd.	Shimbhaoli	UP