Soni Urvish Pravinkumar

CAREER OBJECTIVE:

"कर्तव्यं योगेन च कुर्वीत।"

Perform your duties with devotion and excellence.

EMPLOYMENT:

Timeline: Oct 2015 to till date

GPSC - Class II Officer - Lecturer: Instrumentation and Control Engineering, Government Polytechnic Ahmedabad

CEO : Project and Innovation Lab : Startup Incubator

Startup Mentor : Oqpy ; Zero dirt Machines, Vayu Rakshak , Amrut Bhumi - Ambh , Nitya JAL , Brick Making Machine ; Organic Bricks ; Tinkering Champ

Committee Member: Worked for Admission Committee for Professional Diploma Course ACPDC

TimeLine: July 2012 to March 2015

- Led Maintenance (Instrumentation) department of **Clean Fuel Complex, SEZ Refinery, Reliance Industries Limited, Jamnagar Manufacturing Division as Manager**.

- Worked at **CRUDE DISTILLER UNIT, DTA Refinery, Reliance Industries Limited, Jamnagar Manufacturing Division** as **GET; Instrumentation engineer.**

Brief of Job Scope and Responsibilities:

- Ensuring compliance to standards Procedures and best practices.
- 100% PM/CM (Predictive Maintenance / Corrective Maintenance) compliance with running unit. Tracking PM & PdM, executing, completion tracking and maintaining zero deviation throughout.
- Reduction in spares, inventory value optimization, analyze Maintenance cost and budgeting.
- Participation in Reliability & Integrity studies. Conduct regular troubleshooting and analysis like: RCA(Root cause Analysis); HAZOP study, SIL study, Health safety and environment study
- Looked after and proficient in online sample analyzers like: H2S Gas chromatograph, Sulfur, Flash Point, Distillation and TOC (total organic carbon) Analyzer.
- Fire and Gas, PLC , DCS, ESD (Emergency Shutdown) and System monitoring checking and improvements
- DCS,ESD,PLC Requirement study, installation, Programming (Online /Offline), Communication Network Design, Maintenance, HMI Design (Panel View), 3rd party integration : Braun , (Compressor

Control Corp)CCC , Woodward Turbine Control , Bentley Nevada Machine condition Monitoring System , PLC system up gradation, ESD system interconnections. SIL (safety Integrity Level) classification, HAZOP analysis, RCA (Root cause Analysis)

- Regular checking and troubleshooting of rotary equipment: Pumps, Compressors, Fin-Fans, FD-ID fans etc.
- Efficient planning and of all allocated jobs in running plant as well as in unit shutdown.
- Documentation / planning / Scheduling and Job tracking in SAP. Check sheets and Audit related document preparation.
- Work Order creation, Job Planning, execution tracking, Job history creation, material management for shutdowns, non-shutdown events, Opportunity Maintenance and breakdowns with SAP
- Competency development seminars given to new joiners, GETs, Training session for contactors and sub ordinates.
- Improve safety records of plant through regular interaction with contract workers. Conduct CFA: contractor filed audits as per procedure and guidelines.
- Ensure effective and time bound execution of ongoing projects as well as new projects.
- Lead the maintenance team to achieve excellence in all aspect : routine jobs, emergency conditions ,soft skills and technical development

ACADEMICS:

Completed **Bachelor in Technology** in **Instrumentation & Control** at Institute of Technology, Nirma University

- Got placed through campus selection process in Reliance Industries limited

Senior Secondary & Higher Secondary Examination:
Board: Gujarat Secondary and Higher Secondary Education (GSHEB)
School: Kameshwer Vidhalaya, Jodhpur cross road, Ahmedabad

Exam	Year of Passing	Board/University	Class	Achievement
BTECH	2012	Nirma University	Distinction	72.90%
HSC	2008	GSHEB	Distinction	88.30%
SSC	2006	GSHEB	Distinction	89.71%

HANDS ON WORKING EXPERIENCE ON:

- Crude Distiller Unit :Plant Process and Machinery
- Clean Fuel Projects: Hydrotreaters , Hydrocraker & Utilities
- Thomasson Reciprocating Compressors
- MAN Turbo Centrifugal Compressors
- GE Screw Compressor
- Hearty Fired Heaters

- Filtex Packages (Feed Filters)
- Desalter Package
- Shoot Blowers, HVAC controls
- Lube oil systems
- Plant Instruments, Fire and Gas detectors, Inline Sensors
- HART, Conventional and FF communication protocol

TECHNICAL & COMPUTER SKILLS:

- **Online Insitu Analyzers**:

Routine checks , Maintenance and troubleshooting

- SIEMENS MAXUM II gas chromatograph (GC) **Service** : Hydrogen Sulphite

- Sick MAHEK TOC : Total Organic Carbon S**ervice**: Cooling Water

- SOX-NOX stack analyzers, **Service** : Stack flue Gases

- Thermo Fisher : SOLA 2 online Sulfur analyzer **Service** : Ultra Low sulfur diesel (ULSD)

- Flash Point analyzer, Amtek O2-CO stack analyzers **Service:** Stack flue Gases

- **Programmable Logic Controller:**

Requirement study, Installation, Programming (online/offline), Routine checks , Maintenance and troubleshooting

- **Rockwell /Allen Bradly** : RSLogicx 5000 / 5 : Controlgix ,Compactlogix ,

- Factory talk : PanelView Programming (HMI) ;RS linx : RS networks : Communication :Active keeper Management ;Language: Ladder Logic programming

- **Siemens**: S7-300 / S7-400SIMATIC STEP 7

- S7 Series Programming ; Language : STL ,Ladder Logic

- **Fire and Gas Instrumentation**: **Honeywell Safety Manager PLC ;** Fire and Gas Systems ;Ladder Logic ;FM 200 System , Different type of F&G detectors

- **Machine Condition and Monitoring System (MCMS)**

Requirement study, Installation, Programming (online/offline) for machine vibration and safety of equipment

- GE- Bentley Nevada Systems: System 1 Configurations

- Vibration probes : Accelerometer; Velo-meter; Proxy-meter

- Vibration monitor 3500 installation and programming

- **DCS/ESD**:

Requirement study, Installation, Programming (online/offline), Routine checks , Maintenance and troubleshooting

- ○ Foxboro Invensys DCS and Triconix Invensys ESD system programming , System Alarm Configurations , Health and Network Monitoring

- **Circuit Design and Simulation**: Multisim, PSpice, OrCAD, Eagle PCB

- **Microcontroller Development**: Raspberry Pi, Keil uVision, MikroC, LPCxpresso *COTEX M0 ARM* development IDE, Arduino Open Source, AVRdude, LPC Tool Universal Programmer

- **Programming**: C/C++, 8085 and 8051 Assembly, HTML, JavaScript ,XML, XHTML, CSS

- **Arch Linux : Raspberry Pi and peripherals**

- **Virtual Instrumentation**: LabVIEW : Programming Tools, TCP/IP and DATA Communication, Data Acquisition, Control Design and Simulation, Image tools Signal processing, NI Vision, User defined (Satellite) Data and Image Reception System

- **MATLAB**: Control System and Design Tools, Embedded tools, Simulink Coder, DSP Toolboxes, MATLAB Coder and Simulink Tool , Nonlinear System Tools, Integration of LABVIEW and MATLAB Platforms , Video and Image Processing Toolboxes

- **Wireless and Microwave Simulation**: X-CTU Interactive Zigbee, TOSSIM Wireless Network Simulator and Network Stimulator NS2

- **IDEs**: Develop (Eclipse), Arduino, Net Beans, Processing, AutoIt

- **Others**: scilab-5.3.2 for Artificial Neural Network Implementation, Visual Basics 6, MS office, Corel Draw X4

- **CPLD/FPGA**: VHDL on ISE Xilinx

PROJECTS UNDERTAKEN:

(Work Place)
Heat Exchanger Leak Study and Process Improvements
Diesel Hydrotreater process has a S04 (A/B/C/D) Heat exchanger trains. After few process change on crude plant. Frequent breakdowns of these Exchangers where observed. Got selected from Jamnagar refinery for D4 Project: Innovative Idea Generation for that project. Suggested very innovative ideas to rectify the breakdowns.
(Academic Curriculum)
Major Project: **Organization :** Space Application Center, ISRO Ahmedabad   **Real Time Data Acquisition , Processing and Display System for Telemetry and Video DATA of INSAT-3D Imager Payload:**   Design of Hardware and Real Time Software for Receiving Data From Base Band Signals through TCP/IP and Prediction Algorithm and trend analysis for Telemetry Data, Development of Graphical User Interface in

LabVIEW for Telemetry and Video channel for Imager Payload for Monitoring Health of payload on the satellite.

Artificial Neural Network on Chip: Most error proof and very accurate Neural network Concept Dumped Using **MATLAB** tools "NFTOOL" and "*embedded Coder*" in a Microcontroller chip.(Minor Project)

Real time Controller: Made a real time Proportional controller for acid tank using **LabVIEW Implemented** the controller without control system tools but only logical functions.

Chopper: A boost converter which can work like a **DC transformer** used in SMPS, Power Electronics. The device is able to convert **12 VDC to 300 VDC output**

Wireless Sensor Networking Using Microcontrollers and RF Modules – Transfer of values like Temperature and Humidity on a port of microcontroller from one node to another node via Radio Frequency waves and Presented Idea for WSN in Agriculture via mobile node.

Spy FM Transmitter: A **coin size FM transmitter** can be used as a spy for listening the secret talk or conversation which can be received in Mobile phones or any FM receivers.

10x7 LED Dot Matrix Display using AT89c52 Microcontroller Printed "SAM ROCKS" on the display and made it Scrolling ,all Work Done on **PCB**s Professionally self-Made in Eagle 5.0.2 Software

Sound Amplitude: Made a sound wave gain Viewer with **LM3915** one Hardware compatibles with T.V., Mobile phone, I Pod, Laptop and PC with 3.5mm jack given in it.

SALLEN Key filter: Build a High Pass filter can use as amplifier and Butterworth filter.

A Electronics Store: A full online electronic store created having all the option for buying Branded items, service center and Customer Database System using **Visual Basic 6.0**

(Extra Academic Curriculum)

Adaptive Traffic Resolution System (ATRS) – a traffic resolution algorithm developed over a wireless sensor network and capable of adapting the all possible traffic situations

AVR Based Wireless Sensor Networks over Zigbee protocol – implementation of Zigbee protocol in the area designated for sensing parameters like Temperature.

Arduino Based Wireless Sensor Networking by Demonstrating Temperature Relay Nodes – Transfer of values of different parameters from one node to another node via RF Modules at 433 MHz unlicensed band Research Project

Arduino Based Oscilloscope Tracking Input Waveform Changes and Display – The tracking of input voltage waveform changes and its display on the computer screen in real-time

IRS (Intelligent Register Control System) Camera Feed Design and Rotary Encoder Interfacing With Controller – Feeding the camera with a preset value of spacing to spot the mark and encoder interfacing to get the counts
Research Project: Industry Application

AVR LCD interfacing: 16x2 LCD interfacing with ATmega32 Microcontroller with parallel port programming.

Light Emitting Diodes, OLEDs and AMOLEDs – The emission of light and recent advancements

SEMINARS & PAPERS:

- **Seminars and lectures delivered in Reliance Jamnagar on Instrumentation, Data Networking, and Online Analyzers.**
- **Multi side seminar for JMD, VMD, PMD & HMD delivered with the topic on online analyzers.**
- **Got Youngest Subject Matter Expert in Reliance Jamnagar**
- Presented seminar on **Artificial Neural networks.**
- Presented seminar on "**Computer used in Bio Medial Field**" for **Bio medical Instrumentation**.
- Presented seminar on **Self Discipline** under the program of **Career Orientation**.
- **Motivational seminar** given to school students of 11th & 12th Sci. In my *Alma mater*.
- **Term Papers:**
- **Advance Detectors** in Measurement Techniques**.**
- **Two Product Distillation column Process control.**
- **Home Automation** solutions using Microprocessors.
- **Software used in Calibration and Control** in Instrumentation System.

WORKSHOPS AND EXTRA COURSE:

- Completed 1 year training program as **Graduate Engineer Trainee** in DTA Crude distiller plant at Reliance Jamnagar refinery.
- Attended 4 day seminar on **Machine condition and monitoring system** at learning center RIL, JMD
- Attended 4 day seminar on **PLC programming of Allen bready controllogix** at learning center RIL, JMD
- Attended 4 day seminar on **Siemens S7-300 S7-400 PLC** at learning center RIL, JMD
- Attended 4 day seminar on **Process Control system and behavior** at learning center RIL, JMD
- Attended 2 day seminar on **Use of Microsoft Project 2013 for project scheduling** at learning center RIL, JMD
- Attended 4 day seminar on "**SAP systems and its use**" at learning center RIL, JMD
- Attended 2 day seminar on **Emergency Shutdown System** at learning center RIL, JMD
- Attended 2 day seminar on **SIX SIGMA YELLOW Belt** at learning center RIL, JMD
- Attended a one month research on **Embedded Systems, Design Robotics and Physical Computing Based On ARDIUNO and Processing** under Vikram A Sarabhai Community Science Center, Ahmedabad (VASCSC)
- Attended "**Robo Basics**" Work Shop for making *Robot car, Pick & Place Robot and line follower robot* Organized by **ROBO-TECH** Club of Nirma University.
- Attended the **Antenna Design Workshop** by Prof. Dhaval Pujara organized by **ECO and IEEE**
- Programming in **"C" language**   the extra course passed with **"A"** grade in Genius Computer Ahmedabad.
- A level Cleared in "**Speed ARITHMETICS**" with 97% in IPA Vastrapur Ahmedabad.

ACHIEVEMENTS / PARTICIPATION:

- Awarded <u>**National Award for Teachers 2025**</u> by **President of INDIA** Shri Draupadi Murmu organized by Ministry of Education, Government of INDIA on 5th Sept 2025.

- Awarded Best Innovator award by climate change Department, Government of Gujarat for the innovation of Brick Making machine with One lakh rupee of prize money.

- Awarded Best Pedagogical Activity awarded by GTU in GTU Sankul Awards.

- **Awarded 4 times for Process Improvements and Revenue generation suggestions at Reliance refinery.**

- **Got Youngest Subject Matter Expert in Reliance Jamnagar for delivering multi-site Online Analyser workshop.**

- Secured **High Performer GET** award for one year in Reliance, Training Period among 150 GETs from site president Jamnagar Refinery.

- Won an **MSP-EXP430FR5739 Experimenter Board** from **element14 and Texas Instruments** on a ROADTEST Competition organized by element14 United Kingdom on March 28, 2012

- **Secured 1st** rank in Paper-o-Zone, a paper presentation competition in **NU-TECH 2012** *A National Level Technical Symposium Organized by* Nirma University Inaugurated by **Shri Narendra Modi** on 16th February 2012

- Awarded **an Apple iPad2 (3G + WiFi)** by <u>**NXP semiconductors**</u>, **EINDHOVEN-The Netherlands** as a Grand Prize winner in "**Show us your discrete workbench**" among more than 75 international entries on 22nd December 2011.

- Awarded an Apple iPad2 by **NXP semiconductors, San Joes, USA as** a Grand Prize winner in "**I2C bus challenge**", Interface Products for an innovative idea and most interesting Project among 1100 international entries.

- **Awarded an XL_STAR Development Board** which contains a Freescale 8-Bit MCU based development environment, debugger and accelerometer demonstration board by **FARNELL ,UK** for an innovative idea in <u>application of accelerometer</u> in industries.

- **Awarded** an **LPCxpresso COTEX M0 ARM** development kit By **NXP semiconductors** for approved Submission of a microcontroller project of scrolling LED matrix display in an **International** Competition named "**Break your 8/16-bit habit**".

- **Awarded 1st** for presenting **"HVAC-Humidity Ventilation Air Conditioning"** in the "Think Green" **idea presentation** the title event of <u>blitzkrieg 11</u> *A National Level Technical Symposium.*

- **Awarded 1st** for presenting "**Green Electricity from sea waves**" in **an idea presentation** competition in <u>Prevoence'11</u> *A National Level Technical Symposium.*

- **Awarded 1st** for presenting innovative Idea for selling NIF(National Innovation Foundation) category product in **Business plan presentation** in <u>Technofora 11</u>   *A National Level Technical Symposium.*

- **Won 1st prize** in Paper Presentation Competition organized by **LEO CLUB, NIT ROURKELA.**

- **Winner** of "**CI++ER**" the **coding competition of C/C++** in <u>Technofora 11</u>   *A National Level Technical Symposium.*

- **Winner** for presenting **"Vertical Axis Wind Turbines"** in the paper presentation competition in Technofora'11 *A National Level Technical Symposium*

- **Winner** of selection round in "**Techo-Champ 2011**" Agriculture development competition organized by **John Deere International ,Pune** among 50 countries for presenting "*Cost effective Wireless Sensor Network for Agriculture growth*".

- Finalist in Triumph '09 with **highest rank** in "**Spell bee** and **The Company identification"** Organized by **ISTE Students Chapter.**

- Finalist in "BLUE" the *Aqua ROBOTICS* in <u>Technofora '11</u> for "**Water JET Robot**".

- Participated in **Chemozal '10** *A National Level Technical Symposium* in **Poster Presentation** and <u>Achieved a selection of idea</u> in **Idea Presentation (Xploravision).**

- Participated in **i-Fest 09** *A National Level Technical Symposium* in **Robotics** and <u>Achieved a selection of paper</u> in **Paper Presentation.**

- **Ingenium 2009** *A National Level Technical Symposium* **secure the participation achievement in Tellurica-Robotics For** *line Follower, Aqua-soil Robot* and *Wall sensor robot* and <u>Achieved a final selection of paper</u> in **Paper Presentation.**

- Participated in **Technofora X** *A National Level Technical Symposium* and <u>Achieved a final selection of paper</u> in Paper **Presentation.**

- Presented a **Paper** and a **Business plan** in Technofora '09 and *secure participation achievement* in **Dominoes**-The chain Reaction and **Robo Olympiad** for "*Autonomous Robot vehicle*".

- Certified By **Gujarat Vidhyapith** For serving the National Language "**HINDI**" by honoring the "Hindi **VINIT**".

- Achieved "**A**" grade in "**Intermediate Drawing Grade Examination**" taken By State Exam Board in September 2003.

- A Full Page Idea **Published** in the Yearly Event Magazine of **Ingenium '11** on the topic of "**Vertical Axis Wind Turbines**".

- An **Abstract** on "Electricity Production" **Published** In the **i-Mag** yearly magazine of **ISTE** club for the event **i-Fest 09** *A National Level Technical Symposium*.

- An **Abstract** on "Sea Waves and Electricity" **Published** in yearly magazine of **MESA** club for the event **Ingenium 2009** *A National Level Technical Symposium.*

ORGANIZATIONAL SKILLS:

- Organized seminars and events in reliance greens, Jamnagar
- Worked as a representative of I.C. Branch in **Anti Ragging Committee** under **Director Sir** for **Institute of Technology**, Nirma University.

- Worked as **The student Placement coordinator** for 2012 pass out Batch of IC in <u>Industry Institution and Interaction</u> **(Placement) cell** of Nirma University.
- Worked as a **Member** for organizing 'Technofora'- Annual Technical Event conducted by <u>International Society of Automation (**ISA**)</u> Club of Nirma University for 2010-2011

PERSONAL PROFILE:

Address	F/62 Goyal Complex, Opp. Ashima Tower, Bodakdev, Ahmedabad, Gujarat, India -380054
Contact Number	(+91) 942-853-2878
Date of Birth	December 29th 1990
Gender	Male
Status	Unmarried
E-mail	**Upsoni@gpahmedabad.ac.in** **Urvish.ic@gmail.com**
Skype	urvish2912
Known Languages	English, Hindi, Gujarati

DECLARATION:

I hereby declare that the above-mentioned information is true to the best of my knowledge. I consider myself familiar with various aspects of Instrumentation and Control Engineering. I am a dedicated learner, sincere in all my endeavors and have a good temperament to work in a team. I also like learning new topics that are of interest and concern to me.

URVISH SONI
Place: Ahmedabad