

BIKASH NARAYAN PANDA

CURRICULUM VITAE

Being a developer I have around 3+ years of hands on experience in IOT, Smart Micro Grid & Embedded System Integration and implementation of most complex, user friendly and secure applications/systems combining the latest application development and integrating technologies available today utilizing the best practices of the software/hardware industry.

RECENT EXPERIENCE

NIST Technology Consulting Services <http://www.ntcsindia.com>

Embedded System Developer, Jul-2014- Now

Responsible to design and develop IOT based products. Working on projects starting from survey to commissioning.

NIST Technology Consulting Services <http://www.ntcsindia.com>

Internship, Feb-2014- Jun-2014

Worked on various microcontroller platforms and explored IOT aspects. R&D involving smart meters and data aggregation.

EDUCATION

National Institute of Science and Technology <http://www.nist.edu>

M. Tech, Electronics and Communication '15

Published 2 papers on Smart Micro grid in IEEE conferences. Active member on industrial research projects. Guided graduate students in their projects.

GATE <http://www.gate.iitk.ac.in>

Qualified, Electronics and Communication '12

Percentile: 97 AIR: 5126 Score: 489

PKA College of Engineering pkace.edu.in

B. Tech, Electronics and Telecommunication '11

Founded Robotics Club. Organizer Techfest

WORK EXPERIENCE

30Kw Smart Nano Grid <http://www.smartnanogrid.net>

Client: The Odisha Renewable Energy Development Agency & Wärtsilä India Private Limited

About: A smart Nano Grid comprising of 30 Kw solar power plant and providing supply to 115 homes in Chotkei Village, Odisha. The smart grid is equipped with completely autonomous stem to make it hassle-free to operate. The grid is connected to internet by using a Satellite internet connection. The smart grid features automatic billing, smart scheduling, overload detection and many safety features. The local consumption data of every user are logged onto a local server by using Fiber Optic and Ethernet network. The data on the server are then analyzed automatically and the system executes the measures required if any. The scheduling feature of the smart grid allows scheduling the supply to each household depending upon their requirement. The overload detection mechanism prevents the user to connect heavy loads to the supply as the supply is limited and purely solar. The automatic billing system detects the payment made by the customer and if the customer has no dues supply is enabled for him/her. If the customer has not paid the bill the supply is automatically cut-off within 10 days. The overall IOT usage helps to keep track of overall operation of the grid as the grid is located in a remote place and is not always convenient to visit personally.

Recognition: Won 1st prize in Smart Village Category during Smart City EXPO 2016, India.

Covered by various Indian/ International NEWS Media

Print Media Coverages: <http://bit.ly/2Biiq6O>

Video Coverages: <http://bit.ly/2Bi5fnn>

GET IN TOUCH



www.weargenius.in

geekybikash@rediffmail.com

+91-9437 103 537

C/O- KB Panda

SBI Road, Sonepur

Subarnapur, Odisha-767017

INDIA



/geekybikash



/WeArGenius



/oksbwn



/in/oksbwn



/oksbwn

Water Consumption Monitoring nanosoftremote.com

Client: Orange County resorts, Kabini.

About: Daily water usage is monitored and logged into the cloud. Analytics on the aggregated data provides information about the consumption pattern, water consumption vs. no of cottages booked in the resort to the client. The data also helps to monitor leakages in the supply system by providing notifications on abnormal consumptions.

Water Quality Monitoring and Flow Control nanosoftremote.com

Client: Indo-MIM Pvt. Ltd, Bangalore.

About: This system helps to detect the quality of water used in the plant. Also it is enabled to log the water quality parameters to the cloud to have information about the water used. If the system detects water quality parameters below the preset threshold values it stops the flow of water.

15 KW Hybrid RE Power Plant Monitoring nanosoftremote.com

Client: National Institute of Science and Technology, Berhampur.

About: Same as Energy Monitoring System but it acquires data through MODBUS over RS-232 from an OLYMPUS 15 KVA solar inverter. Along with the electrical parameters it also fetches the battery health, solar generation, DG Runtime, Biomass Genset Runtime etc.

****For more project details please check Annexure-I**

ADDITIONAL EXPERIENCES

WearGenius youtube.com/weargenius

Content Creator

YouTube channel on tech and tutorials. I personally do all the works starting from idea to video productions. It primarily hosts video around Raspberry Pi, Arduino and other microcontrollers as well as IOT. 1200+ Subscribers and 200K+ Views

ALBERTO weargenius.in/alberto

Developer/Creator. Work in Progress.

My dream project to create an AI based interactive home automation system and been working from last 3 years. This allows the user to interact with the smart home in a more interactive way like voice. Built around Raspberry Pi, Arduino, ESP8266 and other low cost hardware. Current system helps me to control loads of my room by using web, Android APP. Notifies me on various notifications by voice like social, mail, memo etc. Developed using JAVA, PHP, Android, HTML, C++, MongoDB etc.

Element14 Community element14.com/oksbwn

Member

Posts video contents around Embedded System Stuffs. Won Member of the Month (June 2016). Reviewed 2 products.

Smart Bulb

Designer/Creator.

A smart bulb controllable/configurable by using Android App.

Raspberry Pi Add-on

Designer.

An add-on board meant for Raspberry Pi containing ADC, Pulse, Current Analog Input (4-20mA) and RS-232. This enables the Raspberry Pi to interface with analog sensors as well as allows to interface industry standard (4-20mA) current output sensors. The RS-232 port can be used to communicate with external devices with RS-232 capability.

Mini Home Automation/ Energy Monitoring System nanosoftremote.com

Designer

Featuring Smart Energy Meter with MODBUS, 3 relays to control loads and ATMEGA328 (Arduino), this device can help the user to keep track of the Energy usage around his Home. The relays provided allows the user to control up to 3 devices. The device connects to internet by using standard Ethernet. This also provides features like Scheduling, Control from Web/ Android App.

TECHNICAL SKILLS

Arduino Language/Processing	■■■■■
Microcontroller Development	■■■■■
Embedded C	■■■■■
JAVA	■■■■■
Eagle CAD	■■■■■
Electrical Architecture Design	■■■■■
Circuit Design & Debugging	■■■■■
Android	■■■■■
MONGO DB, MySQL, SQLite	■■■■■
Reverse Engineering	■■■■■
Modern Web Languages	■■■■■
MATLAB	■■■■■
Git	■■■■■
Design for Manufacturing	■■■■■
Python	■■■■■

SOFT SKILLS

Project & Product Management	■■■■■
Large & Small Group Leadership	■■■■■
Technical Writing	■■■■■
Public Teaching	■■■■■
Photography & Videography	■■■■■
Social Media/Brand Management	■■■■■

TECHNOLOGIES

Operating Systems	<i>Windows, LINUX (UBUNTU, FEDORA), RASPBIAN, OSMC</i>
Programing Language	<i>JAVA,C, C++, Android (Working Knowledge), Lua Embedded, Python</i>
Web Technology	<i>HTML, PHP, CSS (Working Knowledge), JavaScript, XML & JSON, JSON RPC</i>
Tools	<i>Eclipse (ULK), Code Composer Studio, Eclipse, Android Studio, MATLAB, AVR Studio, MP Lab, Keil, MBED, Google Sketch Up</i>
Version Control Tools	<i>GIT, Bit bucket, GitHub</i>
Business Areas	<i>Education, Energy and Real Time</i>
Protocols	<i>I2C, SPI, UART, MODBUS, AT Command Sets, TCP/IP Using mbed, Rs-485,BLE,MQTT</i>
PCB Designing	<i>Cadsoft Eagle, Fritzing</i>
Editors	<i>Notepad++ (Editor), Visual Studio Coder, Atom</i>
Awareness	<i>Hardware, Networking, Embedded System Integration, Smart Metering, Smart Grid</i>
Sensors	<i>PIR, Ultrasonic, Current, TDS, PH, Wind, Radiation, Humidity, Temperature, Pressure</i>
Hardware Platforms	<i>Atmega16, 8051, PIC16F877A, ARM Based Boards (LPC1768, LPC2148), Wipro ULK board, Arduino, Beagle board XM, Beagle bone black, Raspberry Pi, MBED, ESP8266 (Lua),BBC Micro: Bit, Nano Pi, Orange Pi, Codebug, Sonoff Dev. Board, Onion Omega, Linkit Smart 7688, Banana pi D1,ESP32, Blend</i>
Software Platforms	<i>OpenHAB (Home Automation)</i>

RESEARCH PUBLICATIONS

Google Scholar Profile: <http://bit.ly/2j1Mq25>

- Jani, Subhasmita., Bikash Narayan Panda " *Portable Air Quality Monitoring System Using Arduino and Android.* "Proceedings of.
- Bikash Narayan Panda. "*Implementation of a smart grid system to remotely monitor, control and schedule energy sources using Android based mobile devices.*" Industrial and Information Systems (ICIIS), 2014 9th International Conference on IEEE-2014.
- Bikash Narayan Panda "*Implementation of a Web of Things based Smart Grid to remotely monitor and control Renewable Energy Sources.*" Electrical, Electronics and Computer Science (SCEECS), 2014 IEEE Students' Conference on IEEE -2014.
- Panda, Bikash Narayan. "*Microgrid-A Smart Grid for Community Users.*" "Proceedings of National Seminar on "Dispersed Generation & Smart Grid.
- Presented a paper on "*Modeling of an ARM Processor based Braille recognition device based on SVM classifier*", ICHCI-2013 at Saveetha University, Chennai.

Annexure - I

Remote Energy Monitoring System *nanosoftremote.com*

Client: FOURESS Engineering (INDIA) Ltd., Bangalore
Orange County Resorts, Kabini
PoinTec Pens and Energy Pvt. Ltd., Bangalore

About: *This Energy monitoring System is designed to aggregate electrical usage data from smart meters connected to the load lines. The controller interacts with the smart meters using MODBUS and fetches data from them including line health parameters and KWh. The collected data is then send to cloud server by using Ethernet/USB 3G Dongle/Wi-Fi/GPRS Modules.*

Remote monitoring of 50Kw Solar Power Plant *nanosoftremote.com*

Client: The Odisha Renewable Energy Development Agency, Odisha

About: *Same as Energy Monitoring System but it acquires data through MODBUS over RS-232 from a OPS 50 KVA solar inverter. Along with the electrical parameters it also fetches the battery health, solar generation and environmental parameters. The data so aggregated helps in complete tracking of the rooftop solar power plant. This also include a public display system which shows the solar generation, daily usage ,tons of CO2 saved etc. on an indoor LCD inside the secretariat of Odisha to make people aware of Renewable Energy.*

Boxing Match Scorer

Client: Army AD College, Berhampur, Odisha

About: *A JAVA GUI based application that helps to give scores to the players during boxing matches by the juries. Each jury has access to two handheld input pads that they use to put score for the players. The result of the game is saved for future references and also displayed in real time through a large outdoor display.*

Online Process Monitoring System

Client: PoinTec Pens and Energy Pvt. Ltd., Bangalore.
Seshaasai E Forms Private Limited, Bangalore

About: *A control system designed to communicate with PLC using MODBUS over RS-485 to fetch data and logging them to cloud server. The aggregated data helps to do analytics of the production, raw material usage, employee work hours, machine*

NEWS Display System *nist.edu*

Client: National Institute of Science and Technology, Berhampur

About: *The NDS (News Display System) is developed to serve the purpose to display NEWS Items, Information or important announcements to the targeted audience. It fetches trending news topics from RSS feeds of different renowned news websites and parse the topic for text and image contents. Now the parsed content is displayed over a large display connected to the system. It may be used in Indoor or Outdoor environment.*

Remote Energy Monitoring System using LPC1768 *nanosoftremote.com*

Client: National Institute of Science and Technology, Berhampur
Seshaasai E Forms Private Limited, Bangalore

About: *This Energy monitoring System was an early attempt to aggregate electrical usage data from smart meters connected to the load lines. The LPC1768 MBED controller interacts with the smart meters using MODBUS and fetches data from them including line health parameters and KWh. The collected data is then send to cloud server by using Ethernet.*

Vehicle Tracking System *http://ww.vtslave.in/nist*

Client: National Institute of Science and Technology, Berhampur

About: *Vehicle Tracking System (VTS) is developed around GPS/GPRS module to help in tracking vehicles. The controller fetches the location (Lat., Long.), Velocity of the vehicle, Oil Level also interacts with a barcode reader to facilitate easy boarding to the vehicle if it is public. The data retrieved are logged to cloud server and the user can log in to the server and keep complete track of the vehicles. It's pretty useful for public transports to make smart.*

Home Automation System *nanosoftremote.com*

Client: National Institute of Science and Technology, Berhampur.

About: *Distributed home automation system is developed by using raspberry pi and Arduino where each electric panel are replaced with Arduino connected to raspberry pi in network. Android application is provided for easy control of appliances.*