

# Vikas Raikwar

21<sup>st</sup> MAY1996,INDIA

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## PROFILE OVERVIEW:

Highly skilled in Electronics in field of Robotics, Embedded Systems with extensive knowledge of UAV's ,Sensors & PCB designing. Ability to demonstrate & conduct presentations and posses good verbal & written communication skills with good understanding. Sound knowledge of basic computer OS's including web designing.

## CORE COMPETENCIES:

- ROBOTICS
- PCB DESIGNING
- WEB DESIGNING(HTML)
- C
- PLC PROGRAMMING
- EMBEDDED SYSTEMS
- PROTEUS(SIM.)
- NETBEANS IDE
- C++
- WIRELESS SYSTEMS
- UAV'S
- TINA(SIM.)
- ARDUINO IDE
- JAVA(PROGRAMMING LEVEL)
- PNEUMATIC SYSTEMS

## EDUCATIONAL QUALIFICATION :

Examination	School/ College	Year of Passing	CGPA / Percentage%
B.E. ( Electronics & Communication Engineering) [R.G.P.V. Bhopal]	B.T. Institute of Research & Technology, Sagar	2014 - 2018	71.1 %
XII (CBSE)	Vatsalya Sr. Sec. School, Sagar	2013 - 2014	57.2%
X (CBSE)	Vatsalya Sr. Sec. School, Sagar	2011 - 2012	64%

## ACADEMIC ACHIEVEMENTS:

- Rank 1, Project Exhibition** at Horizon Techfest 2015-16 B.T. Institute of Research & Technology 4<sup>TH</sup> Semester, B.E.
- Rank 1, Robo-Race** at Horizon Techfest 2015-16 B.T. Institute of Research & Technology 4<sup>TH</sup> Semester, B.E.
- Rank 2, Quiz Competition** at inter-department Quiz Competition 2015-16 B.T. Institute of Research & Technology 4<sup>TH</sup> Semester, B.E.
- Rank 2, Robo-Race** at Horizon Techfest 2016-17 B.T. Institute of Research & Technology 6<sup>TH</sup> Semester, B.E.
- Rank 2, Robo-Race** at Prabhav Techfest 2016-17 Infinity Institute of Research & Technology 7<sup>TH</sup> Semester, B.E.

## PROJECT/TRAINING/SOFTWARE PROFICIENCY :

- LIVE PROJECTS**  
(Running)
  - : Designing efficient UAV **DRONE for spraying pest control chemicals** over agriculture land with help of self designed chemical spraying system with position & altitude hold feature.  
Working on **Universal remotely web control nano quadcopter** with Bluetooth & nrf24l01 radio module and ESP8266 WIFI module using coreless DC motors.
- MAJOR PROJECT**  
Robotic Arm with teach-in function
  - : Robotic Arm implemented using ATmega328p micro-controller ,micro servo motor (SG90) & 3D printed parts .Technically based on Analog value control which are provided as input for arm movement in 4DOF .Consist of teaching algorithm which records analog value in array in record mode & executes movement of robotic arm for infinite loop when play-mode is active.
- MINOR PROJECT**  
Automatic rotating solar panel with self calibration system
  - : **Automatic rotating solar panel** designed for automatic rotating towards high photonic rays for getting maximum efficiency from sun rays and transform into electrical energy by using solar panel .It is sensorless rotating solar panel which works on principle of maximum efficiency ,it automatically detects and calibrate itself to the direction getting

maximum energy with help of servo motor(SG-90).

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- **QUADCOPTER** : PID controlled **self level DRONE** which can lift 1.5kg weight and can be controlled through transmitter within range of 500m (Dia.) video recording and other application such as monitoring and surveillance can be done. Arduino Nano & MPU6050 Gyro was used for making flight controller with Bluetooth (HC-05) and FLYSky Transceiver system which works on frequency range of 2.4 GHz.
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- **OTHER PROJECTS** : 3D Printer, Wireless Bluetooth Controlled BOT,GSM Based Automatic Distribution Pole Cut-off with Temperature Monitoring System,DTMF robot,Automatic soil-moisture control system with moisture sensor.
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- **BASIC TELECOM TRAINING** : Basic Telecom. Training in which overview of Telecom & mobile network, losses in wired & wireless networks, optical fibre communication with transmission & reception ,mobile technologies & its generations, FTTH technology with access & transmission networks, basic principles of electronic changes, next generation networks, IOT and detail information about internet & IP addresses were discussed & practical information was provided during training session.  
BRBRAITT -BSNL Jabalpur (M.P.)
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- **SOFTWARE PROFICIENCY** : Adobe Photoshop ,Express PCB, Proteus, MultiSim(Basics) ,Arduino IDE, Netbeans, Android ), Fritzing PCB, MATLAB(Basics), Microsoft Office 2007(Basics), AutoCAD 2010 (Basics),NetBeans 6.0(Basics) ,TINA,FluidSIM,Simatic Manager 7,WPLsoft,Inkscape,Fusion 360.
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- **PROGRAMMING LANGUAGES** : C++,Embedded C(Basic),JAVA,HTML(Basics), ALP(Basics) ,Ladder.

#### CO-CURRICULAR ACTIVITIES:

- **WORKSHOPS** : Ethical Hacking ,Quadcopters ,Robotics ,Wireless Robots, MATLAB, Line & Maze follower robot .
- **CERTIFICATIONS** : **Interfacing of Microcontrollers** at **ROBOTRONIX** ,Jabalpur[M.P.], **Wireless Robotics** at **ROBOTRONIX**, DAVV Indore[M.P.], **Basic Telecom Training** at **BRBRAITT**,Jabalpur[M.P.], **Quadcopters** at **IIT Roorkee**.

#### ACHIEVEMENTS EXTRA-CURRICULAR:

- **RoboWar Co-ordinator**, at Horizon Techfest 2016 BTIRT - Assisted to manage the Robowar field and verifying Robots per allotted criteria.
- **Badge Holder** at **Soft skill Development Session**, BTIRT - Served as group leader for maintaining discipline and promoting importance of communication skills.
- **Co-ordinator of Online Exam**, BTIRT - Assisted to look after students occurring in exam and give information regarding online exam software.
- Honoured & awarded as **Super Student**,BTIRT - In recognition of loyalty, leadership, sincerity & determination & Displayed during soft skills development program.
- Workshop Organizer at BTIRT ,Sagar - Organized workshop on wireless Bluetooth robotics at BTIRT campus,Sagar(M.P.)
- Workshop Organizer at Shailesh Memorial School,Sagar - Organized workshop on Basic Electronics for 9<sup>th</sup> -12<sup>th</sup> standard students.
- Represented Madhya Pradesh at **World Skill India 2018** - Under Mechatronics skill ,represented M.P. State in regional competition at World skill India 2018 held at JECC,Jaipur (Rajsthan).
- **Technical Co-ordinator**, at technical workshop,BTIRT - Exhibited skills in software related queries,component monitoring & PCB designing at basic electronics workshop at BTIRT campus,Sagar(M.P.)
- Honoured as **Official Web Developer**,BTIRT - Official web developer for www.satishb3anand.com under supervision of International author- Satish B3 Anand

#### AREAS OF INTEREST:

- **Embedded systems** - Making projects with microcontrollers such as 8051, AVR, Arduino with implementing various modules & sensors like Temperature, accelerometer, gyro, Proximity, Infrared sensors & GSM module and many other sensors with digital circuits
- **Robotics & UAV's** - Making bots with various functions like gesture controlled, light & line following, maze solving bot and UAV's like Quadcopter, airplane with wireless protocols such as wifi, 2.4ghz RF, Bluetooth.
- **PLC & Automation** - Generating logics for automatizing and controlling industrial equipments & devices with implementing various types of sensors such as reflectometer, inductive sensor, color sensor, etc.

#### DECLARATION :

I hereby declare that the above-mentioned information is correct up to my knowledge and I bear the responsibility for the correctness of the above-mentioned particulars.

Date & Place : \_\_\_\_\_

**Vikas Raikwar**