

Curriculum Vitae Prof. Dr. Joyanta Kumar Roy

CONTACT INFORMATION:

NAME : PROF. DR. JOYANTA KUMAR ROY

PERMANENT ADDRESS: SARAJUVILLA
5A, KHALISA KOTA PALLY
P.O: BIRATI, PS: DUMDUM
KOLKATA-700051

TELEPHONE (RES.) : +91-33-25140774
CELL PHONE : +91-9331029638

Email : jkroy.cal51@gmail.com
jkroy_cal51@rediffmail.com
jkroy@ieee.org

Website : www.dr-joyanta-kumar-roy.com

LinkedIn : <http://in.linkedin.com/pub/joyanta-kumar-roy/3b/451/234>

Google Scholar Citation: <http://scholar.google.com/citations?user=7AObW10AAAAJ>

Facebook : www.facebook.com/joyantakumar.roy



PERSONAL INFORMATION:

DATEOFBIRTH : 30.09.1954

MARRITALSTATUS : MARRIED

PRESENT STATUS : 1. Working at MCKV Institute of Engineering, Howrah, W.B as DEAN (Research & Consultancy) and Professor H.O.D Electronics and Communication Engineering Department.

2. Expert (Instrumentation Technology), National Bureau of Accreditation, AICTE, Govt. of India

3. Consultant Electronics and Automation system

ACADEMIC QUALIFICATION:

<i>Sl.no.</i>	<i>University</i>	<i>Degree awarded</i>	<i>Date of award</i>	<i>Branch / Major subject</i>
1	University of Calcutta, W.B	PhD (Technology)	2005	Applied Physics/Instrumentation and Measurement Engineering
2	University of Calcutta, W.B	MSc (Physics)	1977	Physics with specialization Solid State Physics & Electronics
3	University of Calcutta, W.B	BSc (Honor's in Physics)	1975	Physics

FELLOWSHIPS:

<i>Sl. no.</i>	<i>Institution</i>	<i>Fellowship type</i>	<i>Period</i>	<i>Name of the project</i>
1	Indian Council of Medical Research, New Delhi	Junior Research Fellow	1978-2000	Biomedical Evaluation of Static and Dynamic work Of Indian workers using Developed instruments
2	Indian Council of Medical Research, New Delhi	Senior Research Fellow)	2000-2001	-do-

PROFESSIONAL AFFILIATIONS:

<i>Sl. no.</i>	<i>Professional Institution</i>	<i>Membership type</i>	<i>Since (year)</i>	<i>Associated Societies</i>
1	INSTITUTE OF ELECTRICAL, ELECTRONIC ENGINEERS (IEEE), USA	MEMBER SENIOR MEMBER	2005 2010	IEEE Circuits & System Society IEEE Communication Society IEEE Instrumentation & Measurement Society IEEE Industry Application Society
2	INDIAN WATER WORKS ASSOCIATION (IWWA)	LIFE FELLOW	2008	
3	FORUM OF SCIENTIST, ENGINEERS AND TECHNOLOGIST	LIFE MEMBER	2004	
4	INSTITUTE OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS (I.E.T.E), INDIA	LIFE FELLOW	2012	
5	INSTITUTE OF ENGINEERS & TECHNOLOGIST (IET), UK	MEMBER	2012	

AWARD RECEIVED:-

<i>Sl. No.</i>	<i>Name of Award</i>	<i>Award Given by</i>	<i>Award Occasion</i>	<i>Award date</i>
1	SHIKSHA BHARATI PURASKAR	ALL INDIA ACHIEVERS FOUNDATION	NATIONAL SEMINAR ON WORLD PEACE & NATIONAL ECONOMIC DEVELOPMENT	22 nd MAY, 2010
2	LIFE TIME ACHIEVEMENT AWARD FOR EDUCATION EXCELLENCE WITH GOLD MEDAL	INTERNATIONAL ACHIEVERS CONFERENCE, NEW DELHI	NATIONAL SEMINAR ON NATIONAL ECONOMIC DEVELOPMENT AND SOCIAL RESPONSIBILITY	30 TH SEPTEMBER 2010
3	Global Education Leadership Award	IEDRA (Indian Economic Development Research Association)	Seminar on Peace and Economic Development	20 th July 2011
4	Golden Educationist of India Award	International Institute of Education & Management	New Delhi	27th March 2013

EMPLOYMENT HISTORY:

Sl. no.	Institution / Company Address	Designation / Post	Period	Responsibilities
1	M/S. System, Calcutta - 700005	Self-employed / Senior Partner	1984-2004	Marketing, Management, Technical design and development of product
2	M/S. System Advance Technologies Pvt. Limited., Calcutta-700051	Founder Chairman cum Managing Director	2004 on going	-do-
3	Domkal Institute of Engineering and Technology, Domkal, Dist.:Murshidabad	Professor, Dept. of Electronics and Instrumentation	2005-2008	Teaching, Laboratory development
4	Domkal Institute of Engineering and Technology, Domkal, Dist.:Murshidabad	Principal	2008- 2010	College administration, teaching, Academics & laboratory development etc.
5	NARULA INSTITUTE OF ENGINEERING AD TECHNOLOGY	DEAN (RESEARCH) & PROFESSOR EIE DEPARTMENT	May 2010- April-2011	RESEARCH, ACADEMIC HEAD & Teaching M.Tech (ECE)
6	NARULA INSTITUTE OF ENGINEERING AD TECHNOLOGY	Principal (Actg) & Professor EIE Dept.	May-2011 to Dec 2011	Head of the Institution & Teaching M.Tech (ECE)
7	NARULA INSTITUTE OF ENGINEERING AD TECHNOLOGY	DEAN (Academic Affairs) & Professor EIE Dept.	Jan 2012 to Oct 2012	Academic Head and Teaching B.Tech Students
8	NARULA INSTITUTE OF ENGINEERING AND TECHNOLOGY	DEAN (Academic Affairs)& Head of EIE Dept.	Nov.2012 to August 2013	Academic Head and Teaching B.Tech Students and functioning as HOD
9	MCKV INSTITUTE OF ENGINEERING	DEAN (Research & Consultancy) & Professor, Head Dept. of Electronics & Communication Engineering	Sept. 2013 to onward	Looking after Institutional Research and Consultancies, seminar, workshop, FDP and functioning as HOD, ECE and teaching UG & PG

Academic & Research experiences:

Detail of Teaching & Academic Experiences

<i>Sl. no.</i>	<i>Post/ Designation</i>	<i>Date of appointment</i>	<i>Responsibility</i>	<i>Achievement</i>
1	Professor, Electronics and Instrumentation Engineering Dept. Domkal Institute of Engineering	01.04.2006	a) Teaching b) Research c) Faculty development training program. d) Laboratory inclusion and Up-gradation program.	a) <u>Subject taught</u> Sensors & Transducer, PLC DCS & SCADA, Actuators & Process control, UG level b) <u>Design and guidance</u> <u>Setting up</u> VLSI laboratory DSP laboratory
2	Principal and Professor, Electronics and Instrumentation Engineering Dept. Domkal Institute of Engineering	01.06.2008	a) Administration b) Admission c) Examination d) Placement & training e) Discipline f) Matter related to functioning of Institute g) Teaching & Research i) Faculty development j) Laboratory inclusion and up-gradation program.	a) <u>Subject taught</u> DCS & SCADA, Process control at UG level b) <u>Design and guidance</u> Setting up Instrumentation and real time measurement Lab. Process control and measurement laboratory Electrical machine Lab-1 Electrical machine Lab-2 Power system Lab-1 c) <u>Research work</u> Guided three Research fellows working in the field of Electronics, Telecommunication and Instrumentation Engineering. Involved in research in energy efficient brick production in the district of Murshidabad.
3	Dean (Research) Professor, Applied Electronics and Instrumentation Engineering At Narula Institute of Technology	02.07.2010	Looking after:- a) Academic affairs & curriculums b) Industry Institute Partnership cell c) Entrepreneur Development cell d) Research and development curriculum e) Teaching in PG level	Subject taught : M.Tech, ECE, 3rd Semester, Biomedical Signal Analysis
4	Principal (actg.) Prof. EIE Dept. At Narula Institute of Technology	02.05.2011	All administrative and academic jobs as Head of the Institution Looking TEQIP as head	MTECH, ECE 4th year Satellite Communication
5	Dean Academic Affairs Professor & Head Dept. of Electronics and Instrumentation At Narula Institute of Technology	4/01/2012	a) Academic affairs & curriculums b) Industry Institute Partnership cell c) Entrepreneur Development cell d) Research and development curriculum, Conference	Subject taught : Sensor Transducer, Industrial electronics, Process control & automation, Satellite communication, Biomedical electronics Guided MTech Project

Research : 5 years in Biomedical & Human factor Engineering.
 5 years in Applied Physics (Inst. Eng.)
 15 years in Industrial sector on product development as detailed below.
 10 years Engineering and Technology at Institute till date.

RESEARCH EXPERIENCE & PROJECT WORK DONE

A. Year 1979-1980,

Department of Applied Physics, Calcutta University.

Design, development, fabrication and studies have been made on the followings:-

1	Use of thermistor in the temperature measurement of liquid oxygen.
2	Broad range linearization of thermistor in the temperature measurement.

B. Year 1980-1982, Ergonomics Laboratory, Dept. of Physiology, Calcutta University.

Project work:	Biomedical evaluation of static and dynamic work of Indian workers for the betterment of productivity and performance
Financial support:	Indian Council of medical Research, New Delhi
Aims and objective:	Developed, fabricate and standardize some socially acceptable Monitoring instruments for evaluation of static and dynamic work performed by the industrial and agricultural workers.
Achievement:	Successful design, development, fabrication and studies had been made on the following subjects:-
1	Development of on-electrode amplifier for ECG pre-amplifier to avoid base line drift during recording of ECG signals.
2	Development of portable three channel pre-amplifier for EMG signals for evaluation of static and dynamic work.
3	Design and fabrication of portable/dismountable Faraday Cage for recording low-level ECG/EMG signal for studies of human subject during work.
4	Development of miniature portable reaction timer to measure psycho-physiological performance of worker during work.
5	Development of portable skin impedance meter to study the condition of disposable ECG /EMG Electrodes during signal recording.
6	Environmental measurement – Integration of solar radiation and development of a modified solarimeter.
7	Development of diode probe skin temperature thermometer for field studies.
8	Development of digital thermistor probe oral and rectal temperature measuring thermometer.

C. Year 1983-1984, Measurement laboratory, Dept. of Applied Physics, Calcutta University.

Project work:	Studies of Physical properties of the Elbow Prosthesis with the help of a developed ELBOW-JOINT-SIMULATOR
Financial support & Collaboration	Prof. Durgapada Baksi ,MS, MS(ORTHO), FRCS, PhD Ex-head/Prof. Dept. of Orthopedics, Medical College & Hospital, Kolkata.
Aims and objective:	1.To design, develop and fabricate suitable elbow joint simulator (Movement testing device) with a viewpoint of Biomechanics of Elbow joint. 2. In vivo studies of wear and tear of the total elbow prosthesis with cadaver bone after pre-defined number of operations.
Achievement:	Successful studies have been made on IN-VIVO studies of artificial Total elbow prosthesis with the developed and fabricated Elbow joint simulator.

D. Year 1998-2003, Process Control Laboratory, Dept. of Applied Physic Calcutta University, Kolkata

Project work:	Investigation on some New Sensing Techniques and Control Instrumentation Systems of a Process Plant.
Financial support:	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION & PROJECTS UNDER TAPTEC AND R&D SCHEME
Aims and objective:	a) Developed some low cost sensing systems of the process variables like flow level to be used in the process industry. b) Developed low cost icon based computerized control instrumentation c) Developed PC based fuzzy logic control system.
Achievement:	Designed and developed a microprocessor based level transmitter using a modified inductive pick-up sensor.
1	Designed and developed a microprocessor based flow indicator using resistance and semiconductor junction probes.
2	Designed and developed a microprocessor based modified vortex flow meter.
3	Designed and developed a microprocessor based safety instrumentation technique in a level Measurement and control system.
4	Designed and developed an admittance type continuous level monitoring Unit using a single electrode.
5	Designed and developed a PC based boiler drum level monitoring unit using an admittance type double electrode system.
6	Designed and developed a PC based boiler drum level monitoring unit using an admittance type double electrode system.
7	Designed and developed an operational amplifier based bridge network for accurate measurement of transducer parameters.

8	Designed and developed a novel noncontact capacitance type technique for measurement of level of a conducting liquid in a metallic or non-metallic vessel with isolated vessel ground and circuit common.
9	Designed and developed a novel non-contact capacitance type technique for measurement of level of a conducting liquid in a metallic or non- metallic vessel with non- isolated vessel ground and circuit common.
10	Designed and developed a microprocessor based flow controller using the modified vortex flow sensor.
11	Designed and developed a microprocessor based flow controller using the bridge type flow sensor.
12	Designed and developed a microprocessor based flow controller using the resistance and semiconductor type sensors.
13	Designed and developed a PC based liquid level control system using the single and double electrode sensors.
14	Designed and developed a PC based liquid level control system using the non-contact capacitance type sensor.
15	Designed, developed, fabricated and installed a miniature steam generation plant with PC based instrumentation system under the MODROB Project financed by MHRD, Govt. of India
a)	To develop a PID Control loop in Demo Mode and study of its performance for different values of PID parameters
b)	To develop an analogue display unit in Demo. Mode and study its static and dynamic performance for different analogue signals.
c)	To develop a boiler drum level display unit and to draw its static and dynamic Characteristics.
d)	To develop a boiler drum temperature display unit and to draw its static and dynamic characteristics.
e)	To develop a boiler drum pressure display unit and to draw its static and dynamic characteristics.
f)	To develop a boiler feed water flow display unit and draw its static and dynamic characteristics
g)	To develop the steam flow display unit of the steam generation plant and to study its performance.
h)	To develop the temperature display units of the primary super heater and secondary super heater of the steam generation plant and to draw their static and dynamic characteristics
i)	To develop the position control system of an electric motor operated control valve and to draw its static characteristic curve.

j)	To draw the flow characteristic curve of an electric motor operated control valve
k)	To develop the single element type drum level control loop and to find its tuning parameters from the process characteristics.
l)	To study the performance of the pressure switch of the feed water pressure vessel of the boiler drum.
m)	To develop the main steam temperature control loop of the steam generation plant and to study its performance at different control parameters.
n)	To develop the three element type boiler drum level control unit and to study its performance at different control parameters.

Project work:	Design, development and installation of PLC based instrumentation system of the miniature steam generation plant of the Process Control Laboratory, Applied Physics, CU
Financial support & Collaboration:	ALL INDIA COUNCIL FOR TECHNICAL EDUCATION PROJECTS UNDER TAPTEC AND R&D SCHEME
Aims and objective:	Developed, fabricate and standardize PLC based Instrumentation system for a Steam Generation Plant
Achievement:	Successful design, development, fabrication and studies had been made on the following subjects:-
a)	Designed, developed and installed a boiler drum pressure transmitter using Piezo-resistive sensor and tested its static and dynamic characteristics.
b)	Designed, developed and installed five number low noise head mounted Temperature transmitters and tested their static and dynamic characteristics
c)	Designed, developed and installed three number position control circuits of Three motor actuated control valves and tested their performance characteristics.
d)	Designed, developed and installed a two electrode transmittance type boiler drum level transmitter and tested its static and dynamic characteristics.
e)	Designed, developed and installed six number heater control circuits by using proportional on time control technique and tested their performances with the three phase heater units of boiler drum and super heater.
g)	Designed, developed and installed the control panel of a PLC based Instrumentation system of the above steam generation plant with M/s G.E. Fanuc make series 90-30 PLC.

Industry: Associated with electronic industry for 26 years as self-employed person with management, Marketing, product and system development responsibility. As detailed below:-

PROFESSIONAL CARRIER & ACHIVEMENTS

A.	Technical Experience – Hardware
a.	Circuit design, testing of analog and digital system & their fabrication technology.
b.	Instrument transformer, inductor design and their fabrication technology.
c.	Microprocessor based system design and fabrication.
d.	PC based control and measurement system design and fabrication.
e.	PLC based control and measurement system design and fabrication.
f.	Process control system design and execution using smart sensors and smart controllers. g. Optical fiber or radio communication system for process control and measurement system.
h.	Design and turnkey execution of SCADA system and automation.
i.	Distributed I/O and redundant system in process control and automation.
B.	Technical Experience- Software
a.	Microprocessor programming
b.	PLC programming
c.	Human Machine interface programming and configuration (SCADA)
d.	Graphic interface design (SCADA)
C.	Industrial Experience
a.	Participated in design, execution (Supply, installation and commissioning) of various projects on Power Generation sectors, Atomic Energy and other public sectors for last 19 years.
b.	Participated in design and execution of instrumentation, measurement and automation job for various water supply projects Participated in software development for data base management of water testing laboratory, modernization of water testing laboratory using computerized measurement.

E.	Commercial Experience
	Worked as self-employed Business executive (Partner) of SYSTEM, an Electronic manufacturing unit under small-scale industries, manufacturing various customized. Electronic items and executing advance electronic system for last 19 years. Looked after sales/ administration/Research and development work for the company since 1984. Worked as Managing Director of System Advance Technologies Pvt. Ltd. involving EPC contracts of SCADA, Level-1/2/3 Automation, software development for water industry up to 2004
F.	Major industrial achievement
a.	Indigenization of 19 varieties of Burner Management Static Logic cards, Hall probe speed pickup, System 9000 Flame scanner to restore automated BMS operation in the Captive Power Plant at Heavy Water Project, Manuguru, Dept. of Atomic Energy, Govt. of India.
b.	Design, development, supply, installation and commissioning of PLC based Truck Alignment System (Automatic coal handling) for F6 Blast Furnace at TISCO Jamshedpur, Bihar, India.
c.	Execution of Instrumentation and automation system (PLC based SCADA) of 40/60 TPH Hot Mix Plant as turnkey basis.
d.	Design, development and execution (Turnkey) of PLC compatible digital instrument i.e., Energy meter, Sine wave power generator, Coal Flow Indicator, Coal flow integrator, HFO, LFO integrator and Generator synchronization system for Bk.T.P.P Training Simulator, Which is Full Scope Replica of Bakreswar Thermal Power station Unit #1 (210MW).
e.	Design, erection, commissioning of Instrumentation (Online water quality parameters, Flow levels, pH etc) and PLC based Plant SCADA system at Arsenic free surface water based treatment plant, Daskhin Raipur 24 Pgs, (South) W.B, a project of Public Health Engineering, Govt. of W.B.
f.	Design, erection, commissioning of Instrumentation (Online water quality parameters, Flow levels, pH etc) and PLC based Plant Distributed SCADA system at Arsenic free surface water based treatment plant, Mangal Pandey Water Treatment Plant, North 24Pgs W.B, a project of Public Health Engineering, Govt. of W.B
g.	Design, erection, commissioning of laboratory Automation in water Testing Laboratory, Angadpur water Treatment Plant under Durgapur Water Supply Division, PHED , Govt. of W.B

Year-wise detail of some project executed:

Name of assignment or project: “Design, Engineering, Supply, installation & Commissioning of On-Line Instruments for the Distributed SCADA system under North 24 Parganas Arsenic Area Water Supply a/c PHE Dte, Govt. of West Bengal

Year: 2005-2006

Location: Mangal Pandey Water Treatment Plant, Palta, Barrackpore, North24 Pgs., W.B

Client: Petron Civil Engineering Construction Ltd. Principal user: North 24 Pgs., W/S Divn.-I, P.H.E. Dte., Govt. of W.B

Main project features: The assignment covers the design, supply, installation and commissioning of various on line instruments such as online pH transmitter, Residual Chlorine analyzer, Electromagnetic flow meter, Ultrasonic level transmitter, Turbidity analyzer etc. in the treatment plant and remote OHRs and hooked them with Remote telemetering unit of PLC based plant wise distributed SCADA system. These instruments are used for measurement of process parameters of Sludge management, clear water pumping, raw water pumping, clariflocculator management, Filter bed backwash water supply monitoring and water levels of various water reservoirs.

Positions held: Team Leader

Activities performed: Overall responsibility of executing all the activities in the assignment & comply with all provisions of the agreement entered into with PHED on behalf of EPC contractor; Assist Project Director and other staff in day-to-day management of project activities, planning, control preparation of implementation schedule and resource requirements,

monitoring of progress, evaluation of results & removal of constraints. Assist the team in investigation, designing, preparation of tender documents, and construction supervision of all works. Assist PD in preparation of BOQ, specifications and bidding documents and evaluation as per PHED guidelines and presentation of designs to all stakeholders and addressing their concerns. Help project director and engineers time to time technically during procurement, installation and commissioning.

Name of assignment or project: “ Design, Engineering, Supply, installation & Commissioning of Distributed SCADA system with wireless data networking for (i) Main W.T Plant, (ii)Booster Station –I and (iii) O.H. Reservoirs at 9 different Zones under North 24 Parganas Arsenic Area Water Supply

a/c PHE Dte, Govt. of West Bengal.”

Year: 2005-2006

Location: Mangal Pandey Water Treatment Plant, Palta, Barrackpore, North24 Pgs., W.B

Client: Petron Civil Engineering Construction Ltd. Principal user: North 24 Pgs, W/S Divn.-I, P.H.E. Dte., Govt. of W.B

Main project features:

The assignment covers the design, supply, installation and commissioning of Radio communication network, PLC based RTU for centrally receiving process data of nine remote OHR zones, for monitoring all pump status, substation parameters and all on line water analyzers in the treatment plant. Central monitoring system for all plant and process data (SCADA). The design of SCADA customized pages for effective monitoring and data storing. Supply installation of all Radio equipment, Communication towers, HMI server, data server etc. for central monitoring. The SCADA covers, Electrical parameters of Substation, raw water pump house, clear water pump house, Chemical house, Filter beds, Clarifloculators, Sludge pump house, Water flow and water level in local and remote OHRs, Residual chlorine in water at various stages, Residual chlorine of ohrs etc.

Positions held: Team Leader

Activities performed: Overall responsibility of executing all the activities in the assignment & comply with all provisions of the agreement entered into with PHED on behalf of EPC contractor; Assist Project Director and other staff in day-to-day management of project activities, planning, control preparation of implementation schedule and resource requirements, monitoring of progress, evaluation of results & removal of constraints. Assist the team in investigation, designing, preparation of tender documents, and construction supervision of all works. Assist PD in preparation of BOQ, specifications and bidding documents and evaluation as per PHED guidelines and presentation of designs to all stakeholders and addressing their concerns. Help project director and engineers time to time technically during procurement, installation and commissioning.

Name of assignment or project: Supply, installation commissioning and six months trial run of Distributed SCADA system and Wireless data networking at Boosting station –II under North 24 pgs. Arsenic area W/S scheme, Phase -II.

Year: 2006-2007

Location: North 24Pgs, WB

Client: PHE Dte., Govt. of W.B

Main project features:

- Design, construction, supply, installation and commissioning of PLC based RTU unit, On line UPS, wireless radios , HMI SCADA computer system in the Booster Station –II for North 24 Pgs. arsenic area water supply scheme to monitor BS-II pump working status, Substation health, water incoming and outgoing , water level in BS-II storage tank
- Establish connectivity with Treatment plant wirelessly and configure BS-II SCADA with Central SCADA
- Construction of SCADA monitoring station along with all computer peripherals

Positions held: Team Leader

Activities performed: Overall responsibility of executing all the activities in the assignment & comply with all provisions of the agreement entered into with PHED officials; Assist Project Director and other staff in day-to-day management of project activities, planning, control preparation of implementation schedule and resource requirements, monitoring of progress, evaluation of results & removal of constraints. Assist the team in investigation, designing, preparation of tender documents, and construction supervision of all works. Assist PD in preparation of BOQ, specifications and bidding documents and evaluation as per PHED guidelines and presentation of designs to all stakeholders and addressing their

concerns. Help project director and engineers time to time technically during procurement, installation and commissioning. Assist PHD consultants during trial run and final acceptance. Manual preparation etc.

Name of assignment or project: “ Design, Engineering, Supply, installation & Commissioning of Distributed SCADA system with wireless data networking for at 6 different Zones under North 24 Parganas Arsenic Area Water Supply

Year: 2007 – 2008

Location: 6 nos OHR zone, Phase-II North 24 PGS

Main project features: The assignment covers the design, supply, installation and commissioning of Radio communication network, PLC based RTU for centrally receiving process data of nine remote OHR zones, for monitoring all pump status, substation parameters and all on line water analyzers in the treatment plant. Central monitoring system for all plant and process data (SCADA). The design of SCADA customized pages for effective monitoring and data storing. Supply installation of all Radio equipment, Communication towers, HMI server, data server etc. for central monitoring. The SCADA covers, Electrical parameters of Substation, raw water pump house, clear water pump house, Chemical house, Filter beds, Clarifloculators, Sludge pump house, Water flow and water level in local and remote OHRs, Residual chlorine in water at various stages, Residual chlorine of OHRs etc.

Positions held: Team Leader

Activities performed: Overall responsibility of executing all the activities in the assignment & comply with all provisions of the agreement entered into with PHED on behalf of EPC contractor; Assist Project Director and other staff in day-to-day management of project activities, planning, control preparation of implementation schedule and resource requirements, monitoring of progress, evaluation of results & removal of constraints. Assist the team in investigation, designing, preparation of tender documents, and construction supervision of all works. Assist PD in preparation of BOQ, specifications and bidding documents and evaluation as per PHED guidelines and presentation of designs to all stakeholders and addressing their concerns. Help project director and engineers time to time technically during procurement, installation and commissioning.

Name of assignment or project: Audio visual & SCADA system at D Roypure Water Treatment Plant under south arsenic free water supply scheme under PHED, Govt. of West Bengal

Year: 2002 – 2003

Location: 30MGD water treatment plant at D Roypure, Dongaria, South 24 Pgs, W.B.

Client: PSC Engineers Pvt. Ltd. End User : PHEDte, Govt. of W.B

Main project features: The assignment covers the design, supply, installation and commissioning of Optical fiber network, PLC based RTU for centrally receiving process data of Back wash OHR, monitoring all pump status, substation parameters and all on line water analyzers in the treatment plant. Central monitoring system for all plant and process data (SCADA). The design of SCADA customized pages for effective monitoring and data storing. Supply installation of all Radio equipment, Communication towers, HMI server, data server etc for central monitoring. The SCADA covers, Electrical parameters of Substation, raw water pump house, clear water pump house, Chemical house, Filter beds, Clarifloculators, Sludge pump house, Water flow and water level in local and remote Ohrs, Residual chlorine in water at various stages, Residual chlorine of overhead reservoirs etc. Construction of audio visual system and auditorium for central monitoring of SCADA, SCADA control room etc.

Positions held: Team Leader

Activities performed: Overall responsibility of executing all the activities in the assignment & comply with all provisions of the agreement entered into with PHED on behalf of EPC contractor; Assist Project Director and other staff in day-to-day management of project activities, planning, control preparation of implementation schedule and resource requirements, monitoring of progress, evaluation of results & removal of constraints. Assist the team in investigation, designing, preparation of tender documents, and construction supervision of all works. Assist PD in preparation of BOQ, specifications and bidding documents and evaluation as per PHED guidelines and presentation of designs to all stakeholders and addressing their concerns. Help project director and engineers time to time technically during procurement, installation and commissioning.

Name of assignment or project: – “Supervisory Control and Data Acquisition System (SCADA) including allied works for rain water harvested pond based water supply project of Sri Ramakrishna Math and Mission and surrounding area, Belur, District-Howrah”

Year: 2009-2010

Location: Ramakrishna Math & Mission, Belur, Howrah, W.B.

Client: PHED Dte., Govt. of W.B

Main project features: The assignment covers the design, supply, installation and commissioning of Optical fiber network, PLC based RTU for centrally receiving process data of Back wash OHR, monitoring all pump status, substation parameters and all on line water analyzers in the treatment plant. There is a Central monitoring system for all plant and process data (SCADA). The design of SCADA customized pages for effective monitoring and data storing. Supply installation of all Radio equipment, Communication towers, HMI server, data server etc. for central monitoring. The SCADA covers, Electrical parameters of Substation, raw water pump house, clear water pump house, Chemical house, Filter beds, Clarifloculators, Sludge pump house, Water flow and water level in local and remote OHRs, Residual chlorine in water at various stages, Residual chlorine of OHRs etc. The Construction of audio visual system at auditorium for central monitoring of SCADA, SCADA control room etc. has been done. The Central automation of clear water pumps, raw water pumps at burg & lock gate of the pond has been implemented.

Positions held: Team Leader

Activities performed: Overall responsibility of executing all the activities in the assignment & comply with all provisions of the agreement entered into with PHED on behalf of EPC contractor; Assist Project Director and other staff in day-to-day management of project activities, planning, control preparation of implementation schedule and resource requirements, monitoring of progress, evaluation of results & removal of constraints. Assist the team in investigation, designing, preparation of tender documents, and construction supervision of all works. Assist PD in preparation of BOQ, specifications and bidding documents and evaluation as per PHED guidelines and presentation of designs to all stakeholders and addressing their concerns. Help project director and engineers time to time technically during procurement, installation and commissioning.

AREA OF SPECIALISATION	:	On line Instrumentation , PLC based automation and SCADA system, Virtual Instrumentation & wireless industrial communication
RESEARCH GUIDANCE	:	<ul style="list-style-type: none"> □ Presently supervising a group of software developer for developing report analyzing software for SCADA system for Water Treatment Plant. □ Three Research Scholars are working for PhD degree In Electronics & Instrumentation, Engineering.
NO. OF PAPERS PUBLISHED IN NATIONAL & INTERNATIONAL LEVEL	:	<ul style="list-style-type: none"> □ 10 (Ten) in International Journal □ 9 (Nine) in National Journal □ 21 (Twenty one) in International Conference Proceeding □ 22 (Twenty two) in National Conference Proceedings □ 5 (Five) in IEEE Digital Explore
International/national Conference organized	:	<ul style="list-style-type: none"> □ IEEE International Conference on Communication and Industrial Application (ICCIA-2011), Technical Program Chair Chairman Organizing Committee, held at Science City, Kolkata, 26-28 Dec 2011. □ 47th Annual Convention of IWWA at Science City held on 30,31st December 2014, 1st feb.2015 as Technical chair and convener. □ International Conference on Computing, Communication and Manufacturing, ACEEE sponsored, organized by MCKV Institute of Engineering, on 24, 25th December 2014. □ Five National Conference organized 2010-2015

PATENTS	:	NIL
TECHNOLOGY TRANSFER	:	NIL
RESERCH PUBLICATION	:	62 (SIXTY TWO)
NO.OF BOOKS PUBLISHED WITH DETAILS	:	1(one) : “Low cost Sensing Techniques of Industrial Process Variables” Published by LAP Lambert Academic Publishing GmbH, Germany, ISBN: 978-3-659-11192-1, June 2012, TP-450
Book Chapters published/ under publication process	:	2 (Two) <ul style="list-style-type: none"> □ Artificial Neural Network (ANN) in Network Reconfiguration for Improvement of Voltage Stability, "Handbook of Research on Emerging Technologies for Electrical Power Planning, Analysis, and Optimization", Accepted and under process of publication. □ Monitoring Water in Treatment and Distribution System, “Smart Sensors, Measurement, Instrumentation”, Vol. 16, Subhas Chandra Mukhopadhyay (Eds): Next Generation Sensors and Systems, 978-3-319-21670-6, 340073_1_En, (12)
Editor (Journal)	:	Associate Editor, International Journal on Smart Sensing and Intelligent Systems
Editor (Conference Proceedings)	:	1. IEEE International Conference on Communication and Industrial Application (ICCIA-2011) 2. International Conference on Computing, Communication and Manufacturing (ICCCM-2014) 3. 47 th IWWA Annual Convention proceedings
INTERNATIONAL PAPER REVIEWER	:	1. Journal of the International Measurement Confederation (IMEKO), Elsevier “Measurement” 2. Journal of IET Science, Measurement & Technology 3. Sensors, IEEE, 4. Journal of Flow Control, Measurement & Visualization
OTHER VOLUNTEERING WORK	:	<ul style="list-style-type: none"> □ Convener , Technical Committee, National Seminar on Cyclone and its aftermath in the backdrop of AILA- Role of Professionals Held on 26th & 27th February 2010, jointly organized by Institute Of Public Health Engineers, Kolkata Centre & All India Water Works Association, Kolkata Centre. □ Technical Chair and convener, 47IWWA Annual Convention 2015, 30,31 Dec 2014, 1st Jan 2015, held at Science City, Kolkata □ Participated to Industry oriented Training on PLC as invited speaker during 23/08/2010 to 28th August 2010 to carry out practical workshop and lectures on the subject at Asansol Engineering college, W.B. □ Vice Chairman & Executive Committee member IET, Kolkata Network □ Executive Committee member IWWA, Kolkata Chapter □ Executive Committee member IEEE, IAS chapter, Kolkata □ Executive Committee member IEEE joint CSS & IMS chapter, Kolkata □ Patron Michel Faraday International Summit (MIFS 2015) by IET □ Industry Chair IEEE International Conference on Control, Measurement and Instrumentation CMI 2016 organized by IEEE CSS-IMS chapter. □ TPC member ICST 2015, will be held 10-12 Dec 2015, Auckland
International	:	<ul style="list-style-type: none"> □ Participated and presented technical paper at International Conference on Sensing Technology (ICST 2014), at Liverpool John Moores University UK during Sept 2014 □ Invited speaker International Conference on Sensing Technology (ICST 2015) will be held 10-12 Dec 2015, Auckland
NBA ACCREDITATION WORK	:	Expert (Instrumentation Technology) NBA , Govt. of India Participated as expert committee member NBA in one UG and one PG program.
HEAD OF THE EXAMINERS	:	WBUT (in Sensors and Transducers, Nondestructive Testing, 2011-2013

AUTHORISED PhD SUPERVISOR	:	Authorized PhD Supervisor of WBUT in Electronics and Instrumentation Engineering and Electronics and Communication Engineering.
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Annexures

Certification:

I, the undersigned, certify that to the best of my knowledge and belief that: This CV correctly describes my qualifications and my experience

Dated: 27/04/2014



..... (Joyanta Kumar Roy)

ANNEXURE-I

RESEARCH PUBLICATIONS

A. THESIS WORK:

Joyanta Kumar Ray, "Some Investigations on Instrumentation and Sensing Techniques in Monitoring and Control of Process parameters", Dissertation submitted and accepted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy (Applied Physics) in the University of Calcutta, 2004, TP-384

B. LIST OF PUBLICATIONS IN JOURNALS: (International)

1. Joyanta Kumar Roy & Pijus Basak, "Investigating Water Hammer Problem in Piped Water Distribution System" IOSR Journal of Applied Physics (IOSR-JAP) e-ISSN: 2278-4861. Volume 6, Issue 2 Ver. II (Mar-Apr. 2014), PP 51-58
2. Joydeep Roy & Joyanta Kumar Roy, "Design of Smart Universal Remote using Mobile for Home Automation" IOSR Journal of Computer Engineering (IOSR-JCE) e-ISSN: 2278-0061, p-ISSN: 2278-8722, Volume 16, Issue 5, Ver. VIII (Sep-Oct, 2014) PP73-80
3. Joyanta Kumar Roy & Joydeep Roy, "Development of Low Cost Microcontroller based Pulse Electro-magnetic Pulse Therapy System for Pain relief and Bone Healing", IOSR Journal of Electrical and Electronics Engineering (IOSR-JEEE), e-ISSN:2278-1676, P-ISSN: 2320-3331, Volume 9, Issue 5, Ver.IV (Sep-Oct.2014), PP 54-60.
4. Joyanta Kumar Roy and Bansari Deb Majumder, "Elimination of Cross Sensitivity in Admittance Type Level Measurement using Fuzzy based Lineariser", International Journal on Smart Sensing and Intelligent Systems, ISSN: 1178-5608, Volume 7, No. 4, December 2014, PP 2035-2048.
5. Joyanta Kumar Roy, Bansari Deb, Dip Chakraborty, Satyajit Mahanta and Nairit Banik, "The Wearable Electronic Rescue System for Home Alone Elderly- Labview & Arduino Evaluation", IOSR Journal of Electronics and Communication Engineering (IOSR-JECE) e-ISSN: 2278-2834, p-ISSN: 2278-8735. Volume 8, Issue 6 (Nov. - Dec. 2013), PP 50-55
6. S. C. Bera, J. K. Roy and S. Chattopadhyay: 'A low cost noncontact capacitance type level transducer for a conducting liquid', IEEE Transaction on Instrumentation and Measurement, Vol55, No.3, June 2006, pp: 778-786
7. S. C. Bera, B. Chakraborty, J. K. Roy, "A mathematical model for analysis of ECG waves in a normal subject", Journal of the International Measurement Confederation, Elsevier Science Ltd., UK, volume-38, Issue-1 July 2005, page 53-60
8. S. C. Bera, J. K. Roy and S. Chattopadhyay, "A modified inductive pick-up type technique of measurement in a vortex flow meter" Journal of the International Measurement Confederation, Elsevier Science Ltd., UK, volume-35, Issue-1 January 2004, page 19-24
9. S. C. Bera, S. Chattopadhyay, J. K. Roy, A. Naskar and M. Mondal, "A novel measurement technique for a grounded passive transducer" J. of the International Meas. Confederation IMEKO, U. K.,
10. Rabindra Nath Sen, Manas Ranjan Kar, Joyanta Kumar Roy & Aninda Kumar. "Individual Differences in adapting to Shift Work.", J. Human Ergol. (Japan), Vol.11, Suppl.: 57, 1984.

C. LIST OF PUBLICATIONS IN JOURNALS: (National)

- 1 S. C. Bera and J. K. Roy, "Study of an Admittance type Single Electrode Transducer for Continuous Monitoring of Liquid Level in a Metallic Storage tank" – J. of Instn. Of Engineers (I) , vol. 83, pt.2, pp 56-60, January , 2003.
- 2 S. C. Bera and J. K. Roy "An approach to design and fabrication of a microprocessor based flow meter using resistance and semiconductor probe" – Technical Review, J. of Instn. of Electronics and Telecom. Eng. (I) Vol 18, No.5, pp 355 -360, September – October 2001.
- 3 S. C. Bera, S. Chattopadhyay and J. K. Roy "A modified approach to the measurement of capacitance of a capacitive transducer by an a. c. bridge network," – J. of Instn. of Eng. (I), Electrical Engineering Division, Vol 82, pt. 4, pp-250-252 March'2002.
- 4 S. C. Bera, J. K. Roy and S. Chattopadhyay, "A Novel Technique of Boiler Drum Level Measurement Using Non-contact Capacitive Sensor" -- Published in the Journal of Institution of Engineers (I), Electronics and Telecommunication Engineering Division, India, vol. 84, pt.2, pp 14-17, July, 2003.
- 5 J. K. Roy, K. Naskar and S. C. Bera " A low cost microprocessor based liquid level transmitter using inductive pick-up," – J. of Eng. (I) , Vol. 80, pp. 17-22, 1999
- 6 S.C. Bera, B. Chackraborty, J. Roy and S. Chattopadhyay, " A modified bridge network for accurate measurement of the parameters of a grounded passive transducer", Journal of Instrument Society of India, Vol.35, No.1, March 2005, pp134-141
- 7 Joyanta Kumar Roy, "Reaction Time measurement using digital technique Reaction Time measurement using digital technique" Invention Intelligence, Vol.14,No.7, July 1979.
- 8 Rabindra Nath Sen and Joyanta Kumar Roy, "Portable Solar Radiometer for field studies in Ergonomics", Ind. J. Physiol & Allied Sci.(Proceedings of International Symposium on Applied Physiology & Ergonomics, Vol.38, Nos.1&2, 1984
- 9 Rabindra Nath Sen, Durgapada Baksi and Joyanta Kumar Roy, "Evaluation of Mechanical Properties of Total Elbow Prosthesis", Ind. J. Physiol & Allied Sci.,(Proceedings of International Symposium on Applied Physiology & Ergonomics), Vol.38, Nos.1&2,1984

D: LIST OF PUBLICATIONS IN CONFERENCE PROCEEDINGS (International)

1. Roy, Joyanta Kumar, Das Arijita, Dutta Debashree, Sengupta Alivia, Joyita Ghosh & Sumit Paul, "Intelligent Stress-Buster"-A labview based real-time embedded system for thought control using brain computer interface", India Conference (INDICON),2014 Annual IEEE, 11-13Dec, 2014, Pune India, DOI: 10.1109/INDICON.2014.7030374, IEEE Digital Xplore, Pages 1-5.
2. Dr. Joyanta Kumar Roy & Ms. Bansari Deb, " Investigation of cross sensitivity of single and double electrode of admittance type level measurement", 2012 Sixth International Conference on Sensing Technology, IEEE Digital Xplore, ISBN:978-1-4577-0167-2/12, pp:234-237
3. Joyanta Kumar Roy, Bansari Deb Majumder, "Cross sensitivity of Ionic Concentration on Admittance type measurement", Proceedings of the 8th International Conference on Sensing Technology, Sep2-4, 2014, Liverpool, UK, Published in International Journal on Smart Sensing and Intelligent Systems, ISSN: 1178-5608, Volume 7, No. 4, December 2014, PP 41-45.
4. J. K. Roy, Bansari Deb Majumder and Anwesha Biswas, "Computational Study of Some Intelligent Process Controller", Proceedings of International Conference on Computing, Communication & Manufacturing 2014, Published by ACEEE, ISBN: 978-0-9940194-0-0, SearchDL ID: 02.ICCCM.2014.1.46, Publication Year: 2014 , Page(s): 175 – 179

5. Arnab Gupta , Joyanta Kumar Roy , Debabrata Datta , "FRACTIONAL CALCULUS IN SOLVING ENGINEERING PROBLEMS", Proceedings of International Conference on Computing, Communication & Manufacturing 2014, Published by ACEEE, ISBN: 978-0-9940194-0-0 SearchDL ID: 02.ICCCM.2014.1.45, Page(s): 40 – 47
6. J. K. Roy , Pijush Basak , "WATER HAMMER IN PIPED WATER DISTRIBUTION SYSTEM: INVESTIGATION IN PRACTICAL SYSTEM AND PROTECTION SCHEME", Proceedings of International Conference on Computing, Communication & Manufacturing 2014, Published by ACEEE, ISBN: 978-0-9940194-0-0, SearchDL ID: 02.ICCCM.2014.1.50, Publication Year: 2014 , Page(s): 189 – 200
7. Suman Das, Joyanta Kumar Roy & Joydeep Roy, " Design of Smart Electrical Energy Metering using Hall Device", Proceedings of International Conference on Computing, Communication & Manufacturing 2014, Published by ACEEE, ISBN: 978-0-9940194-0-0, Search DL ID: 02.ICCCM.2014.1.67, Publication Year: 2014 , Page(s): 206 - 213
8. Roy, J.K. ; Gupta, D. ; Goswami, S. An improved flood warning system using WSN and Artificial Neural Network India Conference (INDICON), 2012, Annual IEEE , Digital Object Identifier: 10.1109/INDCON.2012.6420720 ,Publication Year: 2012 , Page(s): 770– 774
9. J. K. Roy, P. K. Roy & P. Basak, "Water hammer protection in water supply system: a new approach with practical implementation", Proceedings of International Conference on Communication & Industrial Application, ICCIA-2011, Dec 26-28, 2011, Science City, Kolkata, Organized by Narula Institute of Technology, Proceedings published in IEEE Xplore in Feb 2012.
10. Joyanta Kumar Roy, Joydeep Roy & Sumit Nandy, " Chemical Dosing calculator for water Industry", Proceedings of International Conference on Communication & Industrial Application, ICCIA-2011, Dec 26-28, 2011, Science City, Kolkata, Organized by Narula Institute of Technology, Proceedings published in IEEE Xplore in Feb 2012.
11. S.C.Bera, J. K. Roy, S. Chattopadhyay., "Design of An Analogue Position Control System of A Motorized Valve", Proceeding of International Conference on Electrical Machines and Systems, 2007, OC, 8-11 Seoul, Korea, pp: 691-694
12. S. C. Bera, J. K. Roy, S. Chattopadhyay A. Naskar and M. Mondal, "Design of a PC based level control system using a novel non-contact capacitance type transducer"– Proceeding of IEEE Symposium on System on a Chip, pp. 89-96 held at Indian Institute of Science, Bangalore from 22-23 November 2002.
13. S. C. Bera, D. N. Kole, M. Mondal, J. K. Roy and B. Chakraborty, "Design of a PC based Linearization Technique of a Hall Probe Type Level Sensor" Proceedings of IEE (UK), Petitsicon 2005, Kolkata Jan 28-29, 2005
14. S. C. Bera, D. N. Kole, M. Mondal, J. K. Ray and B. Chakraborty, " Design of a PC based Level indicating Controller using Hall probe sensor", Proceedings of the International Conference on Emerging Technologies in Intelligent System and Control, Vol.2 , pp692-697, (EISCO-2005)5-7 Jan 2005, Allied Publisher Pvt. Ltd, New Delhi.
15. S. C. Bera, , J. K. Ray, M. Mondal, D. N. Kole, S. Chattayapadhy and B. Chakraborty, " Design of an Electronic Valve Positioner of an Electric motor operated Control Valve", Proceedings of the International Conference on Emerging Technologies in Intelligent System and Control, Vol.2 , pp698-703, (EISCO-2005)5- 7 Jan 2005, Allied Publisher Pvt. Ltd, New Delhi
16. S. C. Bera and J. K. Roy "Study of a low noise head mounted temperature Transmitter" – Proceedings of the International Conference on Control Instrumentation and Information Communication, CIIC – 2001, at Science City, Kolkata, Dec 13-15, 2001, pp. 419-423.
17. S. C. Bera and J. K. Ray " A PC based position control system of a motorized valve in a process plant" – Proceedings of the International Conference on Control, Instrumentation and Information Communication, CIIC – 2001, at Science City, Kolkata, Dec 13-15, 2001, pp407-411

18. S. C. Bera, J. K. Roy, S. Chattopadhyay; -- "Design of an Analogue Position Control System of a Motorized Valve" -- Proceedings of International Conference on Electrical Machines and Systems (ICEMS-2007), Organized by CES (China Electro technical Society) IEEJ (The Institute of Electrical Engineers Japan) and IEEE Industry Applications Society (IAS), pp. 691 – 694, October 08-11, 2007, Seoul, Korea.
19. J. K. Roy, T.K. Mitra and A.K.Sen., "Precision digital thermometer", Proceeding IIST (Papers proceedings of the International Symposium on Instrumentation), 14-17Jan. Vol.2, 1980.
20. J. K. Roy, S. Chatterjee and A.K.Sen."Broad Range Linearization Technique Temperature measurement with Thermistors", Proceeding IIST (Papers proceedings of the 2nd International Symposium on Instrumentation), Vol.6, No. 1-4, 1984
21. S. C. Bera, J. K. Roy and S. Chattopadhyay, "Design of an Analogue Position Control System of A Motorised Valve or Actuator." Accepted for publication Technical Review, J. of Instn. of Electronics and Telecom. Engg. (I) , Dec ,2002. S. C. Bera & J. K. Ray, " Design of Miniature Steam Generation Plant with Virtual Instrumentation for study of Process parameters", Proceedings of International Conference on Communications, Devices and Intelligent Systems (CODIS 2004),PP 198-202, 8-10 Jan. 2004, Jadavpur University.

E: LIST OF PUBLICATIONS IN DIGITAL LIBRARY (IEEE DIGITAL XPLORE, IET DIGITAL EXPLORE, SEARCH DL)

22. Roy, Joyanta Kumar, Das Arijita, Dutta Debashree, Sengupta Alivia, Joyita Ghosh & Sumit Paul, "Intelligent Stress-Buster"-A labview based real-time embedded system for thought control using brain computer interface", India Conference (INDICON),2014 Annual IEEE, 11-13Dec, 2014, Pune India, DOI: 10.1109/INDICON.2014.7030374, IEEE Digital Xplore, Pages 1-5.
23. Dr. Joyanta Kumar Roy & Ms. Bansari Deb, " Investigation of cross sensitivity of single and double electrode of admittance type level measurement", 2012 Sixth International Conference on Sensing Technology, IEEE Digital Xplore, ISBN:978-1-4577-0167-2/12, pp:234-237
24. Roy, J.K. ; Gupta, D. ; Goswami, S. An improved flood warning system using WSN and Artificial Neural Network India Conference (INDICON), 2012, Annual IEEE , Digital Object Identifier: 10.1109/INDCON.2012.6420720 ,Publication Year: 2012 , Page(s): 770– 774
25. J. K. Roy, P. K. Roy & P. Basak, "Water hammer protection in water supply system: a new approach with practical implementation", Proceedings of International Conference on Communication & Industrial Application, ICCIA-2011, Dec 26-28, 2011, Science City, Kolkata, Organized by Narula Institute of Technology, Proceedings published in IEEE Xplore in Feb 2012
26. Joyanta Kumar Roy, Joydeep Roy & Sumit Nandy, " Chemical Dosing calculator for water Industry", Proceedings of International Conference on Communication & Industrial Application, ICCIA-2011, Dec 26-28, 2011, Science City, Kolkata, Organized by Narula Institute of Technology, Proceedings published in IEEE Xplore in Feb 2012.

D. LIST OF PUBLICATIONS IN CONFERENCE PROCEEDINGS (National) :

1. D. Datta and J. K. Roy, " Application of Soft Computing for Health Risk Analysis due to Ingestion of Contaminant Water", Proceedings of 47th IWWA Annual Convention Kolkata, 30-31 Jan, 2014, 1 Feb 2015, Kolkata, PP 526-534.
2. Joyanta Kumar Roy, Prasanta Kumar Roy & Suman Das, " SCADA and Business Intelligence in Water Treatment Plant", Proceedings of 47th IWWA Annual Convention Kolkata, 30-31 Jan, 2014, 1 Feb 2015, Kolkata, PP 107-115.
3. Joyanta Kumar Roy, Prasanta Kumar Roy , Suman Das & Bansari Deb Majumder, " Internet of Things in Water distribution and production of potable drinking water", Proceedings of 47th IWWA Annual Convention Kolkata, 30-31 Jan, 2014, 1 Feb 2015, Kolkata, PP 116-124.
4. Arnab Gupta, Joyanta Kumar Roy and Debabrata Datta, " A study of water hammer problem in pipe line using Monte carlo based approach" , Proceedings of 47th IWWA Annual Convention Kolkata, 30-31 Jan, 2014, 1 Feb 2015, Kolkata, PP 99-106.
5. Sangita Roy, Prof. Dr. J. K. Roy, ," Application of Information & Communication Technology in e-Health", Proceedings of All India Seminar on Global e-healthcare-Present Trends, The Institution of Electronics and Tele Communication Engineers, Kolkata, 8th & 9th September 2012, pp-28-30
6. Dr. Joyanta Kumar Roy, " Next Generation Wireless Sensors and its network", Proceedings of National Seminar NGC -10 and Annual Convention 2010 of Institute of Engineers, 29th & 30th October at Kolkata organized by Institute of Engineers, Electronics and Telecommunication, West Bengal Chapter., 2010.
7. Dr. Joyanta Kumar Roy, "Role of Information and Communication Technology in the backdrop of Cyclone Aila" Proceeding of National Seminar on "Cyclone and its Aftermath in the backdrop of AILA- Role of Professionals" 26 & 27th February 2010 at Kolkata jointly organized by IPHE and IWWA, pp: 36-42.
8. Dr. Joyanta Kumar Ray "Recent Application of Distributed SCADA in Monitoring a Water Treatment Plant with its Distribution System"- Proceedings National Seminar on "DCS and SCADA in Power &Process Industries" organized by Dept. Of Applied Physics, University of Calcutta, 30.12.2006, page-14-26, 30th December, 2006.
9. S. C. Bera, J.K. Roy "Study of a precision signal conditioner for piezoresistive pressure sensor using switched capacitor instrumentation amplifier" – All India Inter Science Technology &Engineering College Academic Meet 2002 held at Bengal Engineering College on 6th April, 2002.
10. S. C. Bera, S. Chattopadhyay and J. K. Roy " Modified ac bridge network technique for accurate measurement of a process variable by an electric transducer", Proceedings of National Seminar on Instrumentation, Measurement and Control – IMAC-2002, 14 – 16 February, 2002, p-9 at the Department of Instrument Technology, Andhra University, Visakhapatnam.
11. S. C. Bera and J. K. Roy " Design of a microprocessor based liquid level Transmitter, Proceedings of National Seminar on Instrumentation, Measurement and Control – IMAC-2002, 14 – 16 February 2002, p-12 at the Department of Instrument Technology, Andhra University, Visakhapatnam.

12. S. C. Bera, J. K. Roy and S. Chattopadhyay " Design of a modified low cost vortex flow meter" Proceedings of All India Seminar on Application of Evolutionary Strategies to Power, Signal Processing and Control – AES – 2002, 14–15 February 2002, pp-99-103, at the Department of Electrical Engineering, Regional Engineering College, Rourkela.
13. S. C. Bera, J. K. Roy and S. Chattopadhyay " A simple design of first alarm Annunciator" Ninth State Science and Technology Congress, 28th February – 2nd March 2002, at Shantiniketan, Viswabharti University
14. S. C. Bera, J. K. Roy and S. Chattopadhyay " A Novel Technique of Boiler drum Level Measurement using Non contract Capacitive Sensor " – All India Inter Science Technology & Engineering College Academic Meet 2002 held at Bengal Engineering College on 6 th April, 2002.
15. S. C. Bera, J. K. Roy and S. Chattopadhyay " Design of safety instrumentation system of an electric motor driven pump" Ninth State Science and Technology Congress, 28 th February – 2nd. March, 2002, at Santiniketan, Viswabharti University
16. S. C. Bera, J. K. Roy and S. Chattopadhyay "Design of an Analogue Position Control System of A Motorized Valve of Actuator." Presented in National Seminar on Instrumentation and Information Technology for Disabled (NSIITD) March 22-23, 2002. , Organized by CSIO. IETE, CSIR, CSI, Chandigarh
17. S. C. Bera, J. K. Roy, B. Chakraborty and R. Roy, "Study of frontal plane Spectral amplitude orientation pattern and power spectral distribution pattern of ECG wave in a normal subject" Presented in National Symposium on Instrumentation NSI-27 held at Bharathiar University, Coimbatore, from 27-29th November, 2002, accepted for publication in Instrumentation Society of India.
18. S. C. Bera, J. K. Roy and S. Chattopadhyay and B. Chakraborty, " A modified bridge network for accurate measurement of the parameters a grounded passive transducer" Presented in National Symposium on Instrumentation NSI-27, held at Bharathiar University, Coimbatore, from 27-29 th November, 2002.
19. S. C. Bera, J. K. Roy " Design of an admittance type two electrode transducer "for drum level measurement " – Proceedings of National Conference on Sensor Technology, held at Delhi by DRDO from 26-27 September, 2002, pp- 591-601.
20. S. C. Bera and J. K. Roy "Design of a precision pressure monitoring unit using piezo resistive bridge transducer." – Presented in National Conference on Sensor Technology, held at Delhi by DRDO from 26-27 September, 2002.
21. R. N. Sen and J. K. Roy., " Portable Skin Impedance meter for field studies on Human Subjects", Paper proceedings of the International Symposium on Instrumentation, pp. 14-17, jan7, vol.2, 1980.
22. R. N. Sen and J. K. Roy., "Evaluation of Static and Dynamic Muscular Work using Quantified EMG", Paper proceedings of the 68th. Session of the Indian Science Congress, Varanasi-1981, 1981
