



# JB Institute of Technology

DEHRADUN

Inspiring Minds... Transforming Lives...

## JB Institute of Technology , Dehradun

**A Tableau of AICTE sponsored Five Days Faculty Development Program on “Robotics Process Automation using UI Path” , under the aegis of TEQIP-III in association with Uttarakhand Technical University from (25<sup>th</sup> July – 30<sup>th</sup> July) 2019**

A five days Faculty Development Program on “Robotics Process Automation using UI Path” , conducted by JB Institute of Technology , Dehradun under the aegis of Technical Education Quality Improvement Programme - TEQIP-III in association with Uttarakhand Technical University and sponsored by AICTE , was ostentatiously inaugurated at the campus of Institute on 25<sup>th</sup> July 2019 . The Chief Guest of the event was Prof.(Dr.) Narendra Singh Chaudhari , Vice Chancellor – Uttarakhand Technical University accompanied by eminent speakers – Prof.(Dr.) Suneet Gupta from Leading India AI , Greater NOIDA and Dr. Inderjeet Gupta – Professor , Bennett University . At the outset of the Inaugural ceremony , National Anthem was gracefully choired , thereafter Lamp was lighted to take blessings from Maa Saraswati , Goddess of Education.



Honorable Chairman of the Institute Er. L.D. Singhal and Vice Chairman Mr. Sandeep Singhal gracefully welcomed Dr. Chaudhari by presenting Bouquet to him as token of honor . Later , Dr. Amit Bansal – Director JBIT , welcomed Dr. Suneet Gupta and Dr. Anurag Rai – Director Administration , JBIT welcomed Dr. Inderjeet Gupta by presenting them respective bouquets .



Welcome Note was given by Dr. Amit Bansal . During his address Dr. Bansal welcomed all the dignitaries and faculty members to the event. He extended a warm and splendid welcome to all the eminent guests of the day. He thanked the authorities of UTU for giving the opportunity to conduct FDP for the enrichment of faculties and consequently for the benefit of students , the real stakeholders of quality education. He also thanked and appreciated the faculty members of JBIT as well as other Institutes to get all set to participate in the FDP . He applauded the enthusiasm shown by the participants to be present in a large number. He also thanked the management for having arrange such a purposeful and object oriented FDP. He apprehended that such productive programs surely benefit the entire academic fraternity , whether it's faculty or student. He encouraged the participants to be enthusiastic and more inclined towards current trends and practices in technologies. He gave a brief idea about the entire FDP.



Later , Dr. Suneet Gupta gave a brief introduction about the subject of the FDP . He informed about the relevance and impact of Automation in routine academic activities. He also put his views on contemporary technological aspects finding an important place in automation process. Thereafter , Dr. Inderjeet Gupta introduced about RPA(Robotic Process Automation) . He emphasized on the productivity of such valuable FDPs that scintillates the teaching skills and subject knowledge of faculties. He made everyone aware about the concept of Robotics and its implications in automation . He also informed about the significance of BOTs that are widely used in automation while doing repetitive tasks to reduce the human efforts. He also presented a brief idea on UI Path Studio , the facilitator of RPA.



Thereafter , honorable Chief Guest of the day - Prof.(Dr.) Narendra Singh Chaudhari , Vice Chancellor – UTU addressed the house. While addressing Dr. Chaudhari highlighted upon the impinging fruitfulness of such informative and resourceful Faculty Development Programs. According to him , development is the outcome of enrichment which is mandatory for every educator . It is actually the high time for academicians to get empowered by updated knowledge . It is for this reason only that Uttarakhand Technical University conducts various educative programs regularly for the faculties so that they could enrich themselves

and strengthen their reservoir of knowledge. The highlights of his address can be jotted as follows :

- ✓ He informed about the start of a special program “Job Oriented Employability Test “ , from the current year . It would guide and help the aspiring students to connect their acquisitioned knowledge with the current requirements of industry. It would provide emphatic technical inputs to the students which further would help them in empowering themselves with latest trends and practices in the industry.
- ✓ He further enunciated about the initiation of various endeavors of the University by introducing various programs run by it for the enrichment of the students. He briefed about the “Bhartiya Shiksha Neeti” program to be commenced on 29<sup>th</sup> July 2019 at UTU campus .
- ✓ A skill development program to be commenced on 18<sup>th</sup> August 2019 which would be glorified by the presence of honorable Chief Minister of Uttarakhand Mr. Trivendra Singh Rawat . This event would be accompanied by a Round Table Conference discussing latest innovative practices in currently used technology.
- ✓ He also focused on the improvement of examination system . He informed about the rigorous steps taken to organize the mechanism in more precise manner.
- ✓ He further highlighted on the efforts of TEQIP to improve the quality of Engineering Institutes all over Uttarakhand . For this , TEQIP is planning to start a core technical program for such Institutes with the strong cooperation from World Bank . It would surely gear up the academic operations of Institutes.
- ✓ In addition to it , a special training program for GATE aspirants of Pre-Final year and Final year would shortly be introduced to help the students. Suggestions from the faculties and academicians in this regard are welcomed and they could forward their suggestions to Prof. H.S. Bhandari who would liaison further to the administrative authorities.
- ✓ He appealed every educator and academician to participate in this upcoming program. He suggested to exchange the valuable and productive ideas by forming a WhatsApp group .
- ✓ He advised every FDP participant to adamantly participate in the program and also to discuss on the applicability of Robotics by progressively exchanging queries and suggestions so that the concept is reached more precisely.

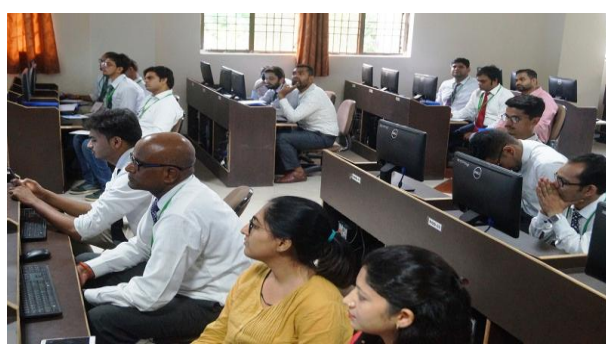
After his informative address , memento was conferred to him by Honorable Chairman Shri Singhal . Vote of thanks was moved by Dr. Anurag Rai . On behalf of the Institute , Dr. Rai extended his heartfelt thanks to all the distinguished guests and speakers to spare their valuable time from their busy schedule to grace the event by their presence. He also thanked all the faculty members of JBIT and other Institutes to attend the FDP. High Tea was declared after that .



### **Technical Session (Day 1)**

First Technical Session was delivered and presented by Prof.(Dr.) Suneet Gupta from Leading India AI , Greater NOIDA . In the session , Dr. Gupta gave the introduction to RPA , explaining the anatomies and terminologies by expatiate demonstration. UI Path is the company that is propagating the implementation of RPA that uses UI Path Studio as software . He gave a detailed information about the Bots and its usability in Robotics. RPA is a configurable software that sits on the top of a company’s existing IT Infrastructure pulling data , performing algorithms and creating reports. He pointed out the benefits of RPA : Reduced Costs , Improved Quality , Increased Security , Improved Compliance and Reporting , Upgraded Analysis , increased Employee Satisfaction , Increased Operational Control. All the participants actively participated in the session. Lunch was declared after that. Second Technical Session , post lunch was delivered and presented by Prof.(Dr.) Inderjeet Gupta from Bennett University . He gave an Introduction to UI Path . Second

session was totally core programming one . Programming related to automation was discussed. Experts discussed the connectivity of program with automation .



### **Technical Session (Day 2)**

Second Day of the FDP started with a bit recap of the previous day . In this session programming modules were structured and explained to the participants . Experts elaborated the practical usage of Robotics. In continuation , applicability of Bots and its programming was demonstrated . Bots are special type of Robots in software format . Bots are very useful for an organization . They increase the organizational efficiency by reducing the human efforts . It helps in decision making of the authorities by its distinguished analytical approach and thereby inferring to the conclusions. Experts informed that Bots are majorly used where repetitive type of tasks need to be performed.

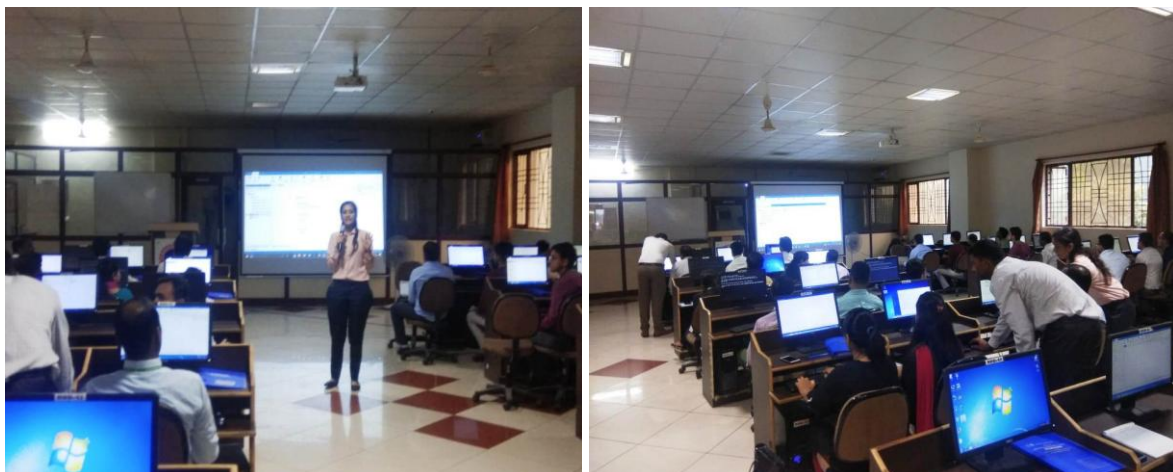




### **Technical Session (Day 3)**

Third Day of the FDP introduced two new speakers Dr. Gaurav Singhal from Leading India AI , greater NOIDA and Dr. Madhushi Verma from Bennett University. Dr. Gaurav Singhal took an expatiate session on significance of automation in IT sector along with many other sectors . Later Dr. Madhushi elaborated on programming in different modules. According to her Robotic Process Automation is the technology that allows anyone today to configure computer software or simply a “robot” to emulate and integrate the actions of a human interacting with digital systems to execute a business process. She guided the participants on various programming aspects. She demonstrated the program on how to extract data and

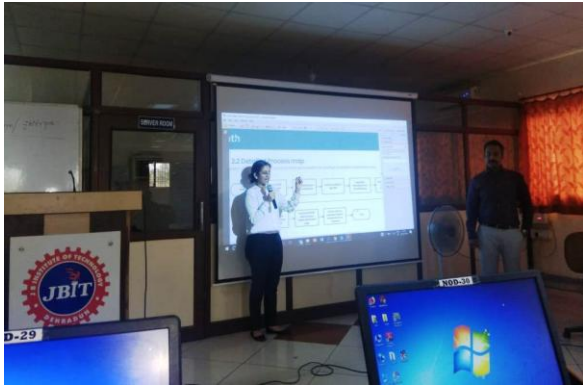
image from a PDF file and get it stored in text file . Video Handler Programs were also demonstrated . Various other programs were displayed and made to generate by the participants . Participants enjoyed learned and implemented the concepts precisely in live programming session.



#### **Technical Session (Day 4)**

Fourth day of the FDP continued with the previous day experts . They shared a detailed study on currently used technologies and trends in IT Industry . In continuation of the same Orchestrator Training was given to the participants . The experts demonstrated the Orchestrator Dashboard and its regulation to the participants. They also explained various technical aspects of the orchestrator. Programs related to it were demonstrated in the session. Later , Introduction to REFrame Work was given . All the participants enjoyed the session as it gave them an innovative blend to use the technology.





### **Technical Session (Day 5)**

The fifth day of FDP introduced two new versatile speakers – Prof.(Dr.) Durga Toshniwal , Department of CSE , IIT- Roorkee and Dr. M. Flex Orlando , Department of Electrical Engineering IIT –Roorkee . First session was taken by Dr. Durga Toshniwal , who gave technical lecture on Data Mining in Time Series. She started her lecture by explaining the importance and applicability of Time Series . She also focused on problems of Time Series as Value Prediction and Pattern Identification. She explained that dimensionality is good if it is small but it becomes challenge when big data is concerned. So reducing the dimensionality is a major concern as far as working through time series in concerned. She explained various methods by which dimensionality can be reduced. She explained the concept of : Discrete Fourier Transform , Discrete Wavelet Transform , Piecewise Aggregate Approximation , Adaptive Piecewise Constant Approximation , Extended Adaptive Piecewise Constant

Approximation , Symbolic Aggregate Approximation , Indexable SAX , Symbolic Fourier Approximation .



Second session was carried by Dr. M. Flex Orlando who elaborated and explained his research work “Robotics in Medical Science” . He attempted to explain how robotics and automation can be useful in treatment where the patient loses his control on the movements of his external organs , eg., hand . According to Dr. Orlando , Robotics is a robot-related science and technology. Through it, the information about Robot's design, construction and applications is available. Generally the robot's structure is mechanical, it is called the Kinetic Chain. Its structure is like the human skeleton. The chain is composed of links (his bones), actuators (muscles) and joints. Most synchronous robots have the same structure as humans. It is made on the basis of the ways of working on the human body. The actuators in the robot for the movement are like human muscles. This is the part that comes in the form of collective energy. Electric motor is used as the most famous activators. In addition, steamer motor, pizzy motor etc. is also used. To prevent complexity, four wheels are used in the robot. He started with the concept of “Exoskeleton” . He explained his theory by demonstrating the Neural Control of Finger Exoskeleton . He told that there may be two ways for this approach , one is Supervised Learning and the other is Unsupervised Learning. He also explained how rehabilitation can be performed with the help of robotics . For this , he chose Inverse Kinematic Control of Index Finger of Exoskeleton . He also demonstrated videos corresponding to his lecture. He also explained the anatomy of Neural Networks in context to his research. Later he brilliantly demonstrated his innovative work “Needle Steering or Smart Needles” . According to him , the traditional needles that were used in surgeries were quite rigid but he invented Self Actuating Smart Flexible Needles that could make the task of surgeons quite easy and smooth as the needles can be made to bend and twist as per specifications. Such needles are rectilinear or curvilinear instead of being linear . He demonstrated needle steering taking the example of prostrate surgery.



### **Closing Ceremony & Valedictory :**

The five day Faculty Development Program came to an end on 30<sup>th</sup> July 2019 . It was the moment to acknowledge the learnings from the experts and give heartfelt thanks to them . In the same context Valedictory Session was organized on the last day of the event. To grace the occasion , Dr. Anita Rawat – Registrar , Uttarakhand Technical University was present as chief guest along with Dr. Manoj Kumar Panda –State Project Coordinator , Govind Ballabh Pant Engineering College as eminent guest of the event . The event started with the enacting of National Anthem followed by lamp lighting by all the distinguished dignitaries .





Dr. Anita Rawat addressed the house by motivating all the participants for brilliantly participating in the FDP . She focused on the applicability of quality and professional education in current context. She appealed all the faculty members to participate in various research and development programs so that their upgraded knowledge could benefit the students at optimum. She discussed the immaculate role of UTU in designing productive course structure for the students that precisely helps them in building their career more promising. She told that the Institutes act as mentor and facilitator to the students , hence it becomes a mandatory specification for the Institutes to make their academics worth competent. She also added that for this the faculties should rigorously update and upgrade their knowledge and skills on a regular basis. Thereafter , Dr. Manoj Kumar Panda at his addressing speech emphasized on the relevance of purposeful technical education . He added that contemporary technical education is wide spread across the various areas of discipline and is more techno centric. Therefore it becomes an opportunity to faculties to utilize it and upgrade themselves accordingly. He informed that it is for the first time that Govt. Institutions are leading TEQIP-III , which can be highly advantageous to the faculties .



Thereafter , Honorable Chairman of the Institute Er. L.D. Singhal and Vice Chairman – Mr. Sandeep Singhal jointly presented mementos to the guests.



All the participants were conferred certificates of participation . Among the present dignitaries were Honorable Chairman of the Institute – Er. L.D. Singhal , Vice Chairman – Mr. Sandeep Singhal , Secretary - Mr. Rajat Singhal , Director – Dr. Amit Bansal , Director

(Administration) – Dr. Anurag Rai , Registrar – Dr. Vishant Kumar . Dr. Y.S. Chauhan , Mr. Dheeraj Agarwal , Dr. S.S. Rawat , Dr. Sanjeev Gill , Mr. Puneet , Mr. Lakhan Singh , Mr. Vijay , Mr. Shubham Kumar , Dr. S.K. Chaudhary , Mr. Manoj Chaudhary , Mr. Wajahat , Mr. Kishore Bhatt, all Faculties of JBIT and other Institutes were also present . Hosting of the entire FDP was carried brilliantly by Dr. Sugam Gupta.











## News Flashes

### Faculty development programme starts at JBIT

PNS ■ DEHRADUN

A six-day faculty development programme on robotics process automation began at the JB Institute of Technology with the assistance of AICTE and Uttarakhand Technical University.

The UTU vice chancellor NS Chaudhary exhorted the participants to make the most of the six-day training pro-

gramme. Learning the various aspects to be taught by experts during the programme would enable the faculty members to teach the same to their students effectively, he added.

Earlier, the institute chairman LD Singhal welcomed the gathering on the occasion.

The institute vice chairman Sandeep Singhal, secretary Rajat Singhal, director Amit Bansal and others were also present on the occasion.

### जेबीआईटी में छह दिवसीय रोबोटिक्स कार्यशाला शुरू



विकासनगर, 25 जुलाई (सुरेश) : जेबीआईटी शंकरपुर में छह दिवसीय रोबोटिक्स कार्यशाला आरंभ हुई। एआईसीटीई और उत्तराखंड तकनीकी विश्वविद्यालय के सहयोग से टीईक्यूआई थर्ड के तहत रोबोटिक्स प्रोसेस ऑटोमेशन यूजिंग यू आई पाथ पर इस छह दिवसीय कार्यशाला का उद्घाटन बतौर मुख्य अतिथि तकनीकी विश्व विद्यालय के कुलपति नरेंद्र एस. चौधरी और संस्थान के चेयरमैन एलडी सिंघल ने किया। कार्यशाला में विषय विशेषज्ञों में डॉ. सुमित कुमार, डॉ. इंद्रजीत गुप्ता आदि रहेंगे। संस्थान के वाइस चेयरमैन संदीप सिंघल, सचिव रजत सिंघल, निदेशक डॉ. अमित बंसल, डॉ. अनुराग राय, रजिस्ट्रार डॉ. विशांत कुमार, किशोर भट्ट, दीपक आदि मौजूद रहे।

## जेबीआईटी में फैकल्टी डेवलपमेंट प्रोग्राम

PIC: DAINIK JAGRAN | NEXT

### प्रोग्राम में न्यू टेक्नोलॉजी की दी गई जानकारी

**DEHRADUN(26 July):** जेबी इंस्टीट्यूट ऑफ टेक्नोलॉजी में एआईसीटीई और यूटीयू के सहयोग से टीईक्यूआईपी थर्ड के तहत रोबोटिक्स प्रोसेस ऑटोमेशन यूजिंग यू आई पाथ पर 6 दिवसीय फैकल्टी डेवलपमेंट प्रोग्राम का शुभारंभ हुआ. कार्यक्रम का शुभारंभ चीफ गेस्ट यूटीयू के कुलपति नरेंद्र एस चौधरी ने किया. इस अवसर पर चीफ गेस्ट डॉ. चौधरी ने फैकल्टी का आह्वान करते हुए कहा कि यह 6 दिन आपके लिए बहुत



● प्रोग्राम में टीचर्स को जानकारी देते एक्सपर्ट्स.

महत्वपूर्ण है. इन दिनों का सदुपयोग करते हुए विशेषज्ञों द्वारा बताई गयी हर एक बात समझना है. जब आप नई टेक्नोलॉजी से रूबरू होंगे, तभी आप अपने स्टूडेंट्स को भी इस टेक्नोलॉजी

के बारे में बता सकते हैं. कार्यक्रम में विशेषज्ञ डॉ. सुनीत कुमार गुप्ता लीडिंग इण्डिया नोएडा, डॉ. इंद्रजीत गुप्ता प्रो. वेनेट यूनिवर्सिटी ने फैकल्टी को जानकारी दी.