LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.
Department of Information Technology

REPORT

on

AICTE Training & Learning (ATAL) Sponsored

Faculty Development Program (FDP) on

"BIO-INSPIRED COMPUTING FOR DATA ANALYTICS"

(08th Feb. 2022 to 12th Feb. 2022)

Department of Information Technology (IT), Lakireddy Bali Reddy College of Engineering (Autonomous) has organized **AICTE Training & Learning (ATAL)** Sponsored Faculty Development Program (FDP) on **"BIO-INSPIRED COMPUTING FOR DATA ANALYTICS"** during **08th Feb. 2022 to 12th Feb. 2022**. This FDP received an overwhelming response with 200 participants from different AICTE recognized institutes were registered across various states of India.

Day 1: 08th Feb. 2022

Inaugural Program:

Inaugural session of Faculty Development Program was started at 9:30 AM on 08th February 2022 by **Dr E. Damodar Reddy**, Associate Professor, Dept. of CSE, NIT-Goa, **Dr. K. Appa Rao**, Principal, LBRCE (A), **Dr. M. Srinivasa Rao**, Dept of CSE, Professor and Dean of Academics, **Dr. E. V. Krishna Rao**, Dept of ECE, Professor and Dean R&D, , **Dr. K. Lavanya**, Coordinator of this FDP, Associate Professor, **Dr. B. Srinivasa Rao**, Convenor, HoD, Dept. of IT, and the Co-Coordinators**, Dr. K. Anupriya,** and **Dr. B. Rama Devi**

Mrs. A. Sarvani has welcomed all the dignitaries and delegates. She was started event as per the program schedule of inaugural session. The reading about the profiles of chief guest **Dr E. Damodar Reddy** by **Dr. K. Anupriya**.

The Program Coordinator Dr. K. Lavanya has extended warm welcome to all the dignitaries and participants. Further, he has emphasized the need for and importance of **BIO-INSPIRED COMPUTING FOR DATA ANALYTICS aspects** in carrying out data analysis in an
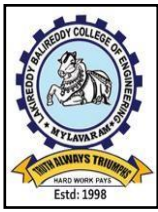
LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.
Department of Information Technology

optimized way. In her welcome speech, she highlighted the objectives and outcomes of organizing this faculty development programme. Also provided the details of all the resource persons along with complete Five day schedule and necessary information that is required like Attendance, Feedback, and Assessment Test for completing successfully of this FDP.
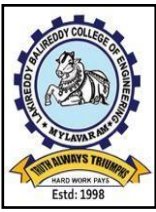
Dr. B. Srinivasa Rao, Convenor, HoD expressed that IT dept is orgainising this FDP, all the resource persons will energise all the participants through this event, and it will be very useful to the entire faculty to enhance their skills. He thanked AICTE and all the organisers.

Dr. E. V. Krisha Rao, Dean of R&D, expressed warm welcome to chief guest . In his speech, provided the importance of knowledge in the optimization algorithms by every researcher, students to complete projects and publish papers in the reputed journals. Also told this is very upcoming thrust area use this opportunity by every participant.

Dr. M. Srinivasa Rao, Dean Academics, has thanked AICTE and ATAL Academy for giving this opportunity to our college to conduct FDP on Bio-inspired computing for data analytics. Then he congratulates convenor and coordinators for organizing this FDP. In his speech, he added that now a days people are working with massive data even in our academics also every day massive data is generated. There is a necessity of processing and optimizing such kind of data. The use of bio-inspired computing algorithms survives the purpose of processing massive data. The Biological commuting is the emerging area in the present days. Also, recommended to the faculty to do Ph.D. in this bio computing or data science.

Dr. K. Appa Rao, Principal, welcome chief guest, faculty, and other participants. In his speech, thanked AICTE for sponsoring this FDP and expressed his wishes all the participants to enhance their skill set and to transform the same knowledge to the students to do their projects etc. He also informed that in teaching profession we need to update our knowledge or skills continuously. Also mentioned that we should get aware about latest emerging areas. He also congratulates coordinator for choosing right topic. Also, thanked to our chief guest **Dr. E. Damodar Reddy** for accepting the invitation to attend program.

The Chief Guest Dr. E. Damodar Reddy, Associate Professor, Dept. of CSE, NIT-Goa. expressed that Bio-inspired computing is emerging area to process any kind of data in an optimized way. In his speech, told the importance of updation of skills by faculty, research scholars and students in research area. Sir said that there is a need of work on real time

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
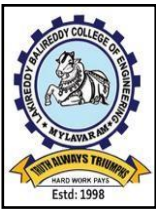Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.
Department of Information Technology

applications then only quality of work or research will be published. Sir, congratulate organization and FDP committee for choosing the latest Bio-inspired computing and data science topics. At end sir suggested to attend all FDP programs organized by ATAL with association of reputed institute to upgrade skills.

Finally, Mrs **A. Sarvani** has given vote of thanks for all the dignitaries, delegates, management and AICTE.

Fig. 1: Inaugural Speech by Dr. E. Damodar Reddy, Associate Professor, Dept. of CSE, NIT-Goa**,
Dr. K. Appa Rao**, Principal, LBRCE (A), **Dr. E.V. Krishna Rao**, Dean R&D, Dr. M. Srinivasa Rao, Dean of Academics, **Dr. B. Srinivasa Rao**, Convenor, HoD, Dept. of IT.

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)

L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and **"CPE"** status by UGC.
Department of Information Technology

Fig. 2: Press coverage by Dr. K. Harinadha Reddy, Vice-principal, LBRCE(A)**,
Dr. E.V. Krishna Rao**, Dean R&D, Dr. M. Srinivasa Rao, Dean of Academics, **Dr. B. Srinivasa Rao**, Convenor, HoD, Dept. of IT, **Dr.K.Lavanya**, coordinator of FDP, **Dr.B.Rama Devi**, co-coordinator of FDP .
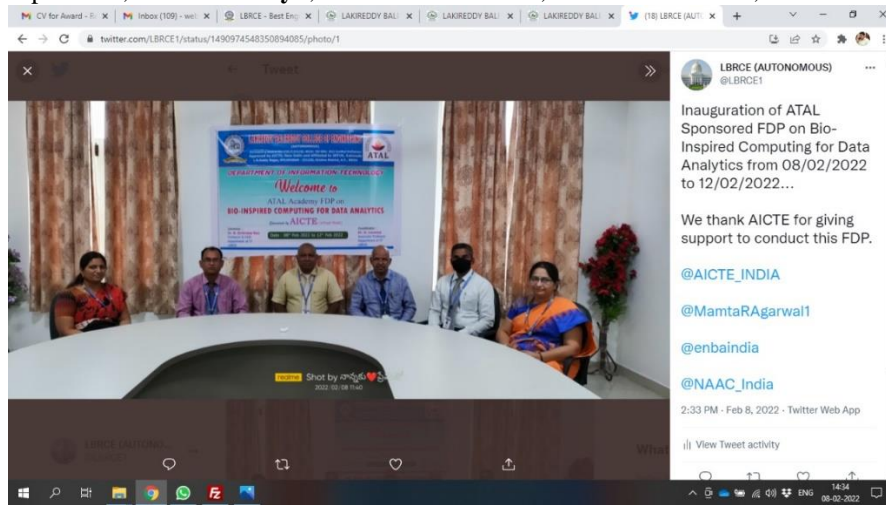
Fig. 3: Twitter Posting: Inauguration of FDP
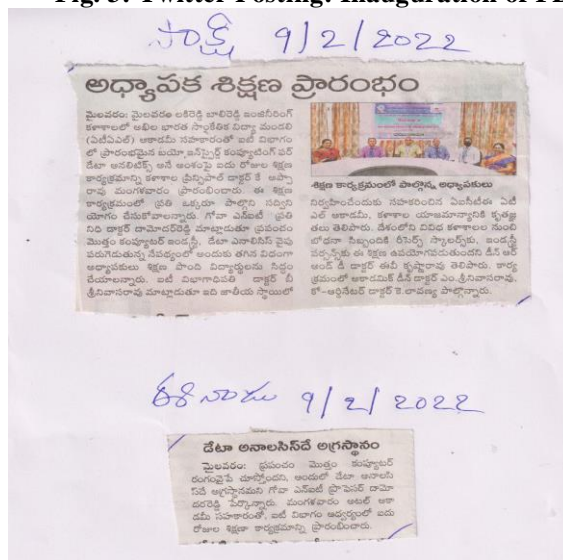
Fig. 4: Paper Clipping on local papers: Inauguration of FDP

ATAL FDP on **"BIO-INSPIRED COMPUTING FOR DATA ANALYTICS"** 08th Feb. 2022 to 12th Feb. 2022 **Organized by Department of IT, LBRCE (A), Mylavaram**
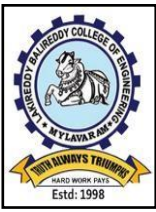
LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.
Department of Information Technology

Day 1: 08/02/2022 (Sessions: 01 to 03)

Session: 01

Topics: Swarm Intelligence: Challenges and Applications

Resource Person: Dr. E. Damodar Reddy, **Associate Professor, Dept. of CSE, NIT-Goa**

Dr. E. Damodar Reddy has presented the importance of swarm intelligence for solving the problems using the techniques like Particle Swarm Optimization (PSO), Ant Colony Optimization (ACO) and genetic algorithms. Provided the Search techniques, given clear difference about the deterministic and stochastic search techniques. He has given deep insights about components of search techniques with examples. Further, he explained detailly about PSO and ACO with real time examples.

ATAL FDP: BIO-INSPIRED COMPUTING FOR DATA ANALYTICS Day-1 (08-02-2022): Session-1
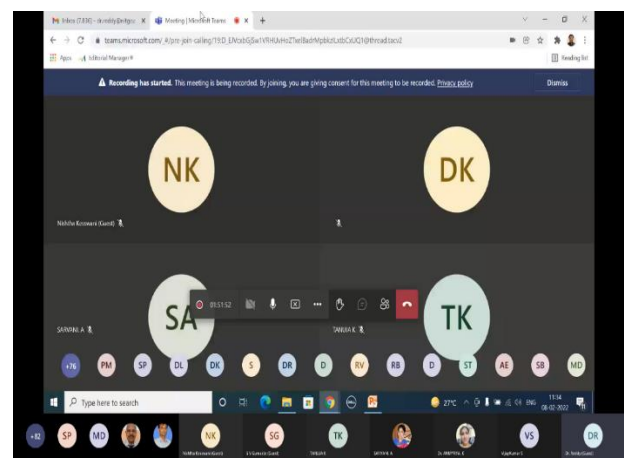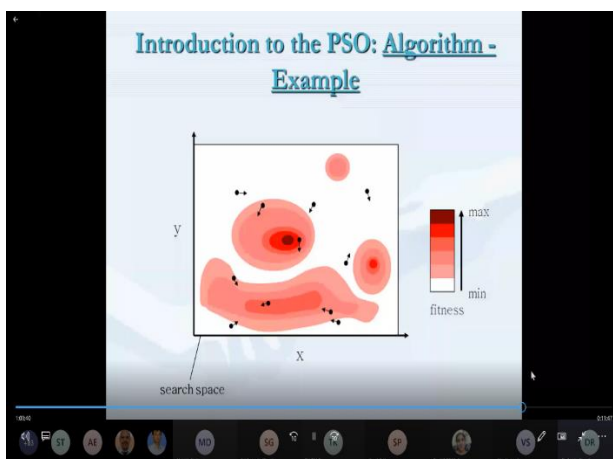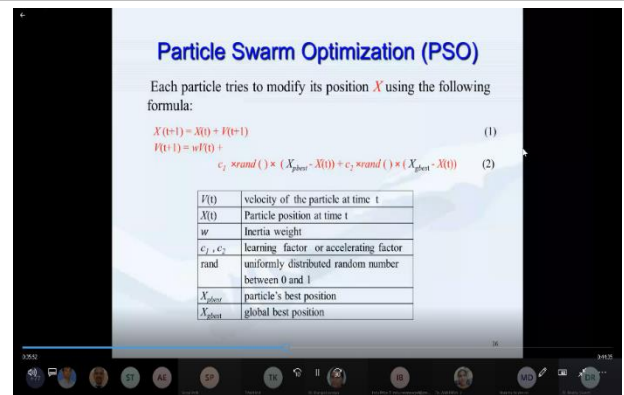
Fig. 5 : 08/02/2022 – Session 01 by Dr. E. Damodar Reddy on Swarm Intelligence: Challenges and Applications
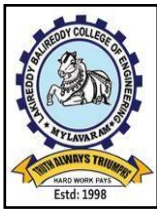
LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and **"CPE"** status by UGC.
Department of Information Technology

Session: 02

Topics: Classification Rule Mining using Bio-inspired algorithms: Diabetes Data

Resource Person: Dr. Cherukuri Ramalinga Swamy, Assistant Professor, Dept. of CSE,

NIT-Warangal

Dr. Cherukuri Ramalinga Swamy has delivered a talk on how diabetes data is going to classify using rule mining. He also discussed about how to optimize the classification using Bio-inspired algorithm using ACO, PSO, ABC and SM Rule maker. Further, he addressed the diabetes data classification with hands on session using python.

ATAL FDP: BIO-INSPIRED COMPUTING FOR DATA ANALYTICS Day-1(08-02-2022): Session-2

Fig. 6 : 08/02/2022 – Session 02 by Dr. Dr. Cherukuri Ramalinga Swamy on Classification Rule Mining using Bio-inspired algorithms : Diabetes Data

ATAL FDP on **"BIO-INSPIRED COMPUTING FOR DATA ANALYTICS" 08th Feb. 2022 to 12th Feb. 2022 Organized by Department of IT, LBRCE (A), Mylavaram**

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.
Department of Information Technology

Session: 03

Topics: Applications of Swarm Intelligence Techniques in Wireless Sensor Networks

Resource Person: Dr. Trilochan Panigrahi, Associate Professor, Dept. of ECE,

NIT-Goa

Dr. Trilochan Panigrahi has delivered a talk on how swarm intelligence techniques is going to applied in Wireless Sensor Networks (WSN). He also discussed about various applications where WSN used swarm intelligence for Incremental and diffusion cooperation. Sir, also discussed about the Distributed estimation of IIR systems parameters using diffusion PSO Further, he addressed the Source localization using Swarm Intelligence algorithms with research studies.

ATAL FDP: BIO-INSPIRED COMPUTING FOR DATA ANALYTICS Day-1(08-02-2022): Session-3

Fig. 7 : 08/02/2022 – Session 03 by Dr. Trilochan Panigrahi on Applications of Swarm Intelligence Techniques in Wireless Sensor Networks algorithms : Diabetes Data

ATAL FDP on "**BIO-INSPIRED COMPUTING FOR DATA ANALYTICS**" 08th Feb. 2022 to 12th Feb. 2022 Organized by Department of IT, LBRCE (A), Mylavaram

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.
Department of Information Technology

Day 2: 09/02/2022 (Sessions: 01 to 03)

Session: 01

Topics: Human Computer Interface using Machine Learning

Resource Person: Dr. E. Damodar Reddy, **Associate Professor, Dept. of CSE, NIT-Goa**

Dr. E. Damodar Reddy has presented the importance of data acquisition using Human computer interface using machine learning. Generally, the people are mainly focused about the analysis and processing, but we need mainly concentrate on how to acquire data from the target object. Sir, also discussed about medical application where the data acquisition how it takes place. Some of the example studies covered in his talk includes Neuro Rehabitation and Postheses.At end he also discussed about the HCI architecture for data acquisiton.

ATAL FDP: BIO-INSPIRED COMPUTING FOR DATA ANALYTICS Day-2 (09-02-2022): Session-1

Fig. 8 : 09/02/2022 – Session 01 by Dr. E. Damodar Reddy on Human Computer Interface using Machine Learning

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)

L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.

Department of Information Technology
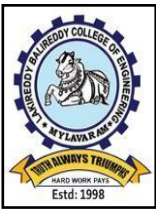
Session: 02

Topics: Research scope for Bio-inspired algorithms

Resource Person: Dr. E. Damodar Reddy, **Associate Professor, Dept. of CSE, NIT-Goa**

Dr. E. Damodar Reddy has presented the importance of doing research in this area by upcoming days. Sir, discussed about the Brain-Computer Interfaces for Communication in Paralysis: A Clinical Experimental Approach. Also, he discussed about his experience with collecting human brain data by various hardware devices in their organization. In his talk, explored more his research experience.

ATAL FDP: BIO-INSPIRED COMPUTING FOR DATA ANALYTICS Day-2 (09-02-2022): Session-2
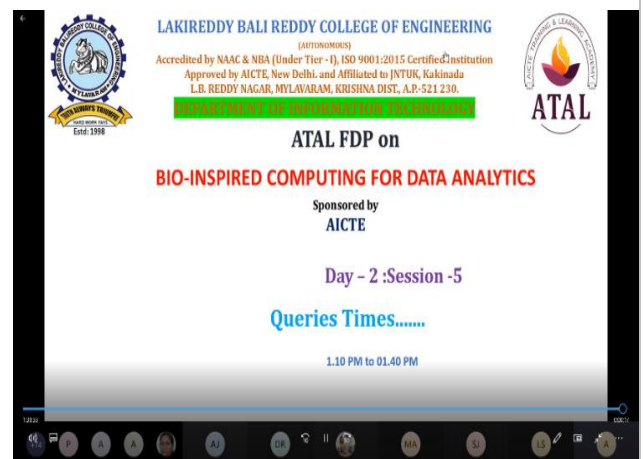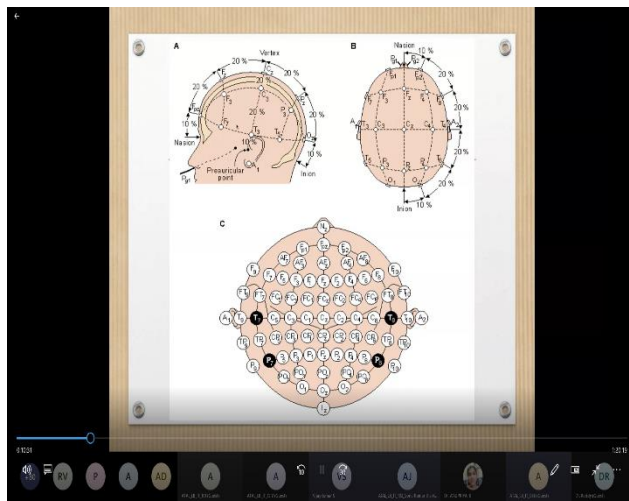
Fig. 9 : 09/02/2022 – Session 02 by Dr. E. Damodar Reddy on Research scope for Bio-inspired algorithms

ATAL FDP on "**BIO-INSPIRED COMPUTING FOR DATA ANALYTICS**" 08th Feb. 2022 to 12th Feb. 2022 Organized by Department of IT, LBRCE (A), Mylavaram

![LBRCE Logo]

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.
Department of Information Technology

Session: 03

Topics: Artificial Bee Colony (ABC) Optimization

Resource Person: Dr. Venkatesh Pandiri, Assistant Professor, Dept. of CSE, IIITDM-Kancheepuram.

Dr. Venkatesh Pandiri, has presented the talk on Artificial Bee Colony (ABC) optimization in research point of view. In his lecture, covered the concepts of combinatorial optimization problem and GCTSP. He also provided the informative about how to apply ABC for the GCTSP. Provided the computational analysis of the research study. At end, he also provided the information about JRF and Ph.D. calls in their institutes.

ATAL FDP: BIO-INSPIRED COMPUTING FOR DATA ANALYTICS Day-2 (09-02-2022): Session-3

Fig. 10: 09/02/2022 – Session 03 by Dr. Venkatesh Pandiri on Artificial Bee Colony (ABC) Optimization

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.
Department of Information Technology

Day 3: 10/02/2022 (Sessions: 01 to 03)

Session: 01

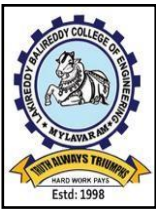**Topics: Classification using Bio-Inspired Algorithms**

Resource Person: Dr. Lavika Goel Malaviya, **Assistant Professor, Dept. of CSE, MNIT,Jaipur**.

Dr. Lavika Goel Malaviya has presented talk on the classification techniques using Bio-Inspired Algorithms. In her, talk Provided the detailed information about the taxonomy of computational intelligence. Also, presented how application of Geo-sciences used Bio-Inspired Algorithms for classification problems. At, end discussed about Biogeography and Plate Tectonics based Optimization for Water Body Extraction in Satellite Images as a research study.

ATAL FDP: BIO-INSPIRED COMPUTING FOR DATA ANALYTICS Day-3 (10-02-2022): Session-1

Fig. 11: 10/02/2022 – Session 01 by Dr. Lavika Goel Malaviya on Classification using Bio-Inspired Algorithms

ATAL FDP on "**BIO-INSPIRED COMPUTING FOR DATA ANALYTICS**" 08th Feb. 2022 to 12th Feb. 2022 Organized by Department of IT, LBRCE (A), Mylavaram

![LBRCE Logo]

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)

L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.

Department of Information Technology

Session: 02

Topics: SALP swarm algorithm (SSA)

Resource Person: Dr. Dharavath Ramesh, Associate Professor, Dept. of CSE, IIT-Dhanbad

Dr. Dharavath Ramesh has given lecture talk on the SALP swarm optimization. In his talk covered the concepts which includes importance of optimization technique, Genetic Algorithm, Salp swarm optimization algorithm, Memetic salp swarm optimization algorithm . At end, he presented research study on the Application of MSSA for feature selection in crop disease classification.

ATAL FDP: BIO-INSPIRED COMPUTING FOR DATA ANALYTICS Day-3 (10-02-2022): Session-2
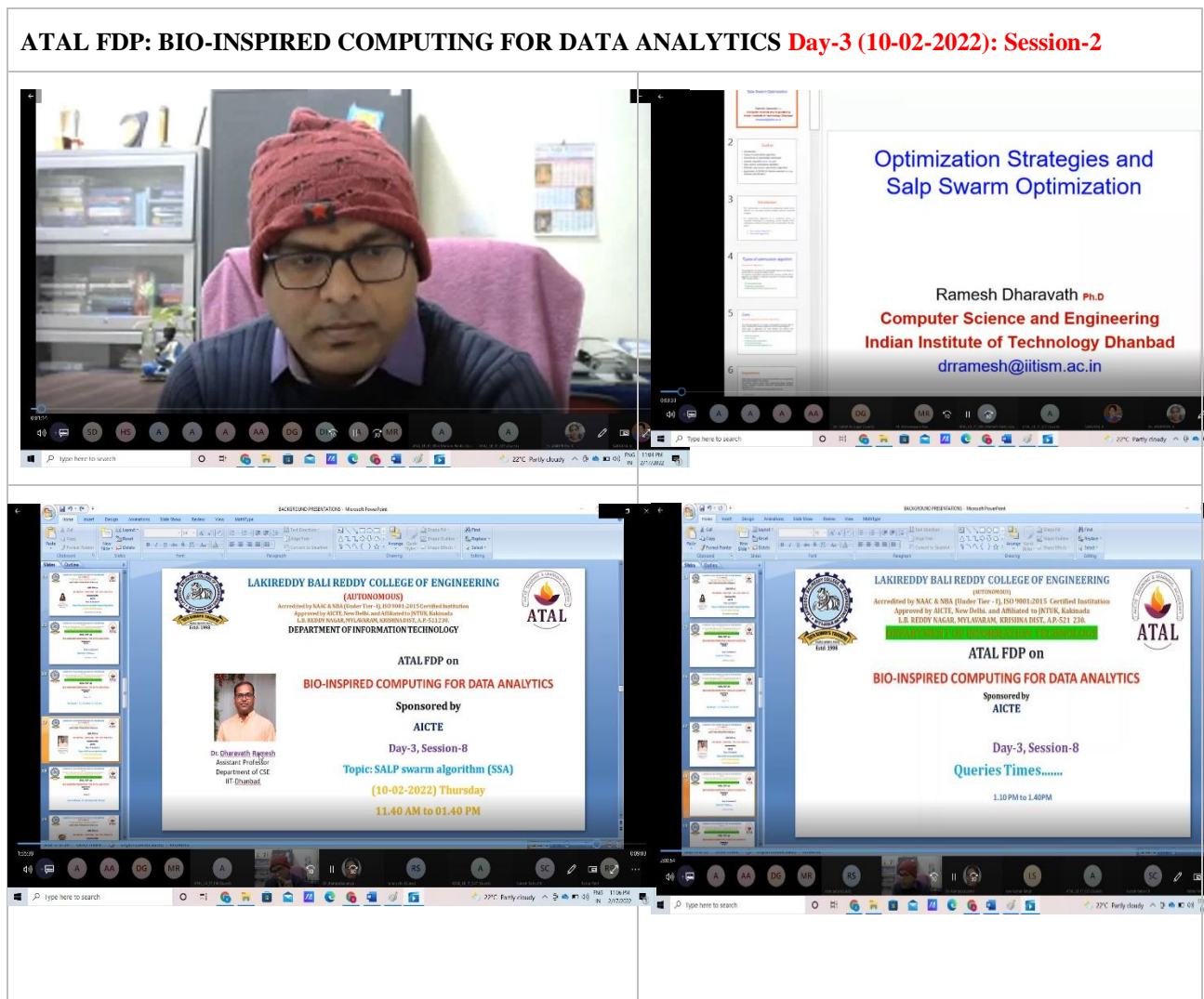
Fig. 12: 10/02/2022 – Session 02 by Dr. Dharavath Ramesh on SALP swarm algorithm (SSA)

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.
Department of Information Technology

Session: 03

Topics: Optimization using Genetic algorithm for Data Analytics

Resource Person: Dr. Venkata Naresh Babu Kuppili, Assistant Professor, Dept. of CSE, NIT-Goa

Dr. Venkata Naresh Babu Kuppili, has presented the Genetic Algorithms for Data Analytics. In his speech, covered the search optimization, especially covered the Guided Random Search Techniques. In his talk presented the genetic algorithm with suitable applications. Further, he explained detailly about TSP using genetic algorithm with examples.

ATAL FDP: BIO-INSPIRED COMPUTING FOR DATA ANALYTICS **Day-3 (10-02-2022): Session-3**

Fig. 13: 10/02/2022 – Session 03 by Dr. Venkata Naresh Babu Kuppili on Optimization using Genetic algorithm for Data Analytics
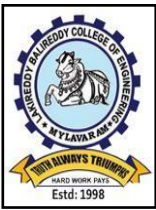
ATAL FDP on "**BIO-INSPIRED COMPUTING FOR DATA ANALYTICS**" 08th Feb. 2022 to 12th Feb. 2022 Organized by Department of IT, LBRCE (A), Mylavaram

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.
Department of Information Technology

Day 4: 11/02/2022 (Sessions: 01 to 03)

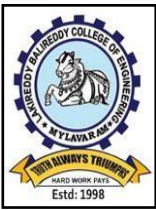**Session: 01**

Topics: Applications of SLAP for IoT

Resource Person: Dr. Dharavath Ramesh, **Associate Professor, Dept. of CSE, IIT-Dhanbad.**

Dr. Dharavath Ramesh has given lecture talk on the SALP application especially covered about IoT enabled computing for Fog/Cloud environment. In his talk preseted the concepts fog computing and suggested to work for optimization algorithms in cloud environment. In his talk, covered the new offloading strategies which includes SALP, fitness based Quasi Reflection and Fuzzy inference system. At end, he suggested all the participants to do research on this area in a better way and publish in good journals .

ATAL FDP: BIO-INSPIRED COMPUTING FOR DATA ANALYTICS Day-4 (11-02-2022): Session-1

Fig. 14: 11/02/2022 – Session 01 by Dr. Dharavath Ramesh on Applications of SLAP for IoT

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and **"CPE"** status by UGC.
Department of Information Technology

Session: 02

Topics: Feature subset selection using Bio-inspired algorithms

Resource Person: Dr. Cherukuri Ramalinga Swamy, Assistant Professor, Dept. of CSE,

NIT-Warangal

Dr. Cherukuri Ramalinga Swamy has delivered a talk on dimensionality reduction on feature selection. He also discussed about how to use optimization or swarm intelligence algorithms to implement feature selection. Also provided the deep concept about PCA concepts. Also in his talk given more information about syed mirjali blog to do research studies in the optimization techniques.
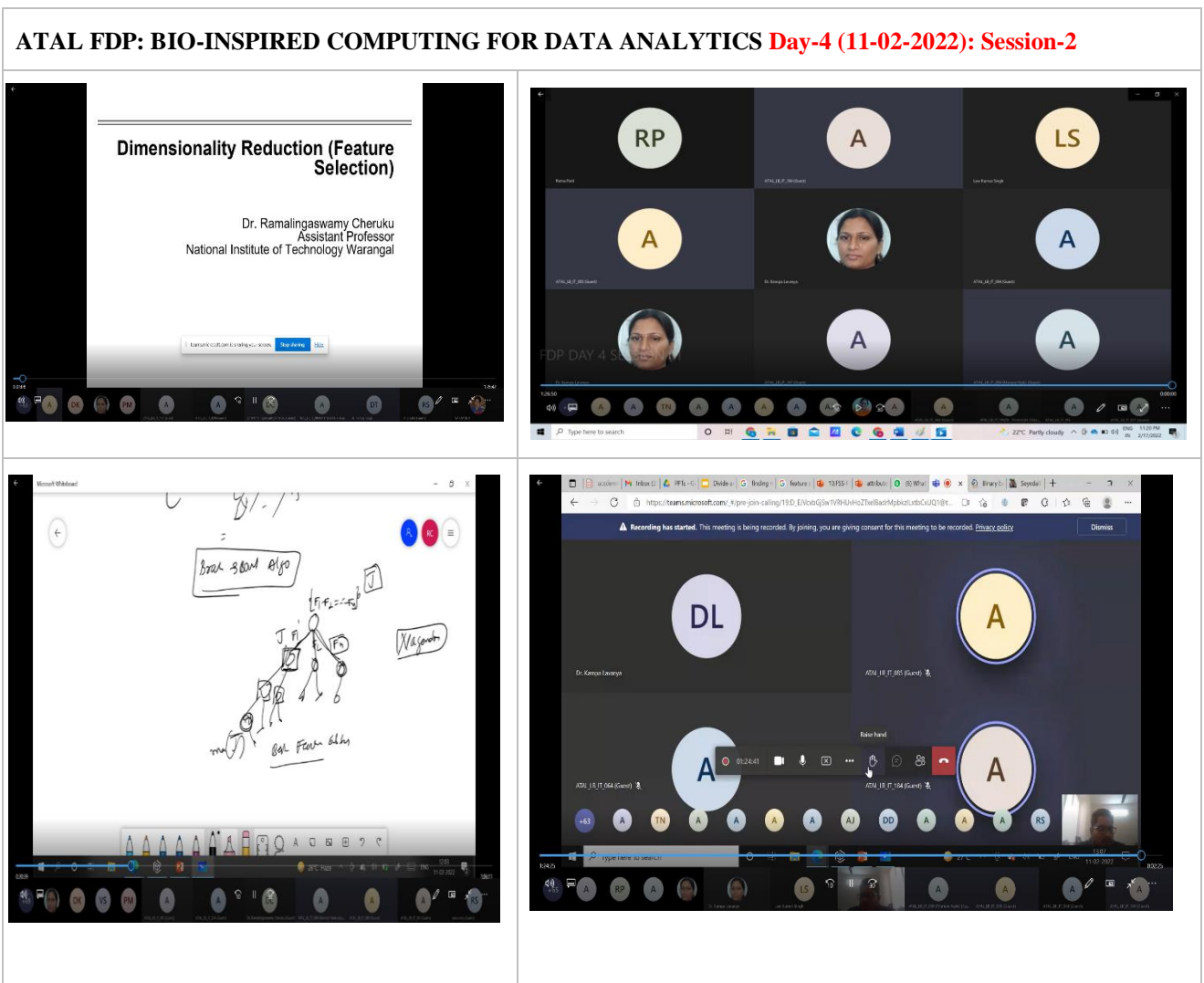
ATAL FDP: BIO-INSPIRED COMPUTING FOR DATA ANALYTICS Day-4 (11-02-2022): Session-2

Fig. 15: 11/02/2022 – Session 02 by Dr. Cherukuri Ramalinga Swamy on Feature subset selection using Bio-inspired algorithms

ATAL FDP on **"BIO-INSPIRED COMPUTING FOR DATA ANALYTICS"** 08th Feb. 2022 to 12th Feb. 2022 Organized by Department of IT, LBRCE (A), Mylavaram

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.
Department of Information Technology

Session: 03

Topics: Deep learning based on bio-inspired computing

Resource Person: Dr. W Wilfred Godfrey, **Assistant Professor, Dept. of CS, ABV-IIITM-Gwalior**

Dr. W Wilfred Godfrey has presented the importance of swarm intelligence in the deep learning. In his talk covered about the biological inspiration and neuron computation. Provided the artificial neural networks techniques in a detailed way in his talk. He has given deep insights about components of search techniques with examples. Further, he explained detailly about generalization performance.

ATAL FDP: BIO-INSPIRED COMPUTING FOR DATA ANALYTICS Day-4 (11-02-2022): Session-3

Fig. 16: 11/02/2022 – Session 03 by Dr. W Wilfred Godfrey on Deep learning based on bio-inspired computing

![Lakireddy Bali Reddy College Logo]

LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)

L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230

Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.

Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.

Department of Information Technology

Day 5: 12/02/2022 (Sessions: 01 to 03)

Session: 01

Topics: Hands-on – Data analysis using Python

Resource Person: Dr. W Wilfred Godfrey, Associate Professor, Dept. of CSE, ABV-IIITM- Gwalior

Dr. W Wilfred Godfrey has presented the importance of swarm intelligence in the deep learning.

In his talk covered about the biological inspiration and neuron computation. Provided the artificial neural networks techniques in a detailed way in his talk. He has given deep insights about components of search techniques with examples. Further, he explained detailly about generalization performance.

Fig. 17: 12/02/2022 – Session 01 by Dr. W Wilfred Godfrey on Hands-on – Data analysis using Python

![Logo] **LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)**
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.
Department of Information Technology

Session: 02

Topics: Optimization of Biometric Recognition System

Resource Person: Dr. Surya Prakash, Associate Professor, Dept. of CSE, IIT-Indore

Dr. Surya Prakash has presented the concept of image processing how it can be improvised using optimized algorithms. In his talk, delivered the image enhancement technique using the Artificial Bee Colony algorithm in a detailed. He has given deep insights about the concept of swarm intelligence in the image enhancement. Further, sir is also announced the Ph.D internship in their institute.

Fig. 18: 12/02/2022 – Session 02 by Dr. Surya Prakash on Optimization of Biometric Recognition System
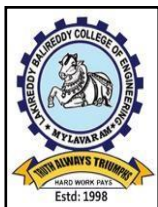
LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and "**CPE**" status by UGC.
Department of Information Technology

Date: 12/02/2022

Valedictory Session

On the Valedictory Session, our Principal, **Dr. K. Appa Rao** and **Dr. B.Srinivasa Rao**, Professor & HOD, Department of IT, **Dr. K.Lavanya**, Coordinator of FDP, and Co-Coordinators of the FDP **Dr. K. Anu Priya, Dr. B. Rama Devi, & Mrs. A. Sarvani** presented.


Fig.19: Valedictory Banner of ATAL FDP

Dr. K. Appa Rao, Principal, congratulate all the participants, convenor, coordinator, co-coordinators, and department of IT for the successful completion of the **ATAL FDP** on **"BIO-INSPIRED COMPUTING FOR DATA ANALYTICS"**. He also informed to all the participants share your knowledge gain in this workshop to your students. At the outcome student need to implement good projects in this area.

Dr. K.Lavanya, Coordinator of FDP, in her valedictory speech thanked ATAL Academy for sanctioning the FDP to our Department. Then she thanked all the Resource Persons Dr. Surya Prakash, Dr. Dharavath Ramesh, Dr. E. Damodar Reddy, Dr. Trilochan Panigrahi, Dr. Venkata Naresh Babu Kuppili, Dr. Cheruku Ramalinga Swamy, Dr. Lavika Goel Malaviya, Dr. W Wilfred Godfrey and Dr. Venkatesh Pandiri for taking the sessions in this program. After that, she thanked all the participants for their active participation. She then thanked the faculty members and staff of the department for their continuous support and cooperation to her for conducting the FDP in a smooth and successful manner.

Dr. B.Srinivasa Rao, Professor & HOD, Department of IT, Convener, in his valedictory speech thanked ATAL Academy for sanctioning the FDP to our Department. Then he thanked the Resource
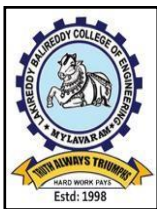
LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)
L B Reddy Nagar, Mylavarm, Krishna District, Andhra Pradesh-521230
Affiliated to JNTUK, Kakinada & Approved by AICTE, New Delhi.
Accredited by **NAAC, NBA** Tier-1 for CSE, IT, ECE, EEE & ME and **"CPE"** status by UGC.
Department of Information Technology

Persons for accepting the request and taking sessions in the FDP. After that, he said that all the participants should share the knowledge gained in this FDP for their research and to students of their institutions and requested them to train the students to do projects on Bio-inspired computing and data science related concepts.

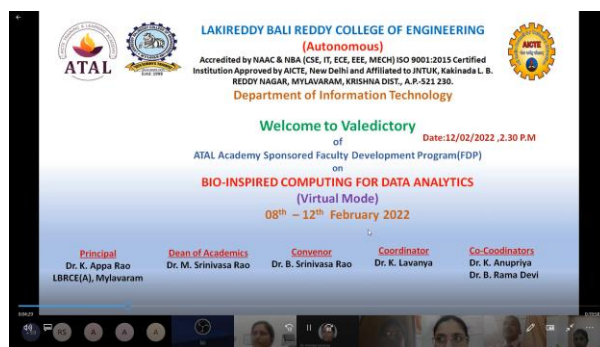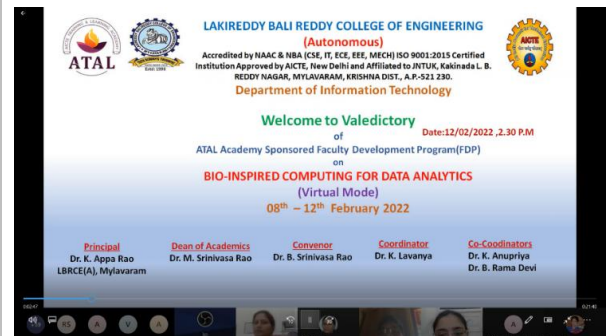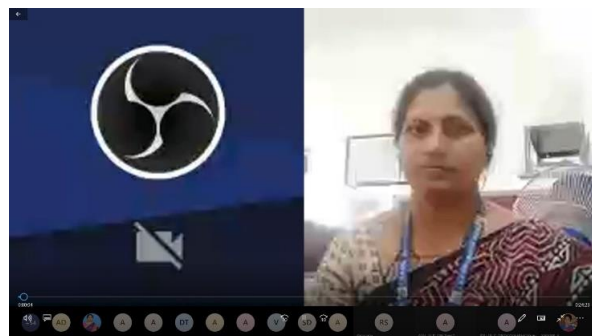**ATAL FDP: BIO-INSPIRED COMPUTING FOR DATA ANALYTICS Day-1(08-02-2022): Session-1**

Fig. 20: Valedictory Speech by Dr. K. Appa Rao, Principal, LBRCE (A), **Dr. B. Srinivasa Rao**, Convener, HoD, Dept. of IT, and **Dr. K. Lavanya**, Coordinator, Associate Professor, Dept. of IT

At the end of the valedictory session, vote of thanks was given by Mrs. A. Sarvani, team member of the FDP in which she has been paid her gratitude towards all the participants who has spared their valuable time for attending this FDP. She also expressed the gratitude to the Resource Persons, Principal, Head of the Department and Management for giving this valuable opportunity.

Coordinator	**Convener**	**Principal**
(Dr. K. Lavanya)	**(Dr. B. Srinivasa Rao)**	**(Dr. K. Appa Rao)**