Report on

Student Development and Faculty Enrichment Program *(SD-FEP)* on Emerging Technologies, Cloud Computing, and Research Translation (25th – 31st January 2026)

Department of Computer Science and Engineering, SET

The Assam Kaziranga University, Jorhat

1. Introduction:

The Student Development Program (SDP) and Faculty Enrichment Program (FEP) on Emerging Technologies, Cloud Computing, and Research Translation were organized by the Department of Computer Science and Engineering, Assam Kaziranga University, from January 25th to 31st January 2026. The programs were conducted under the guidance of Dr. Sajal Saha to strengthen students' technical foundations while simultaneously enriching faculty members with contemporary research, innovation, and funding perspectives.

The combined SDP–FEP initiative aimed to bridge the gap between academic learning and real-world technological applications, focusing on cloud computing, emerging digital technologies, and translational research practices

2. Objectives of the SDP and FEP:

- Enhance students' practical understanding of cloud computing and emerging technologies.
- Familiarize participants with modern computing paradigms such as virtualization and cloud architectures.
- Orient faculty members toward translational research and Technology Readiness Levels (TRL).
- Promote awareness of government initiatives and funding agencies.
- Encourage interdisciplinary collaboration.
- Improve employability skills and research orientation.

3. Target Audience:

- B.Tech VI semester students
- Faculty members

4. Resource Person:

- Dr. Sajal Saha, Professor & Head, Department of CSE, Director -Product & Innovation, Department of Computer Science and Engineering, School of Engineering and Technology, Adamas University.

5. Program Highlights:

- **Student Development Program:**

The Student Development Program provided in-depth exposure to modern cloud computing paradigms and their practical deployment. The sessions began with an overview of the need for cloud computing, highlighting the transition from traditional "buy and own" infrastructure models to the modern "subscribe and use" approach, enabling pay-as-you-go resource consumption and reduced capital expenditure. Students were introduced to the fundamentals of virtualization, emphasizing how cloud platforms provide an illusion of infinite on-demand resources through abstraction layers.

Core technical concepts included virtualization technologies such as para-virtualization, virtual machine capabilities including live migration, and hardware-assisted virtualization support. Detailed discussions were conducted on cloud storage management, comparing block storage and object storage, along with an overview of different volume types such as SSD- and HDD-based storage optimized for performance, throughput, and cold access scenarios.

The program also covered cloud account and subscription models, explaining on-demand, reserved, and spot instances, along with Total Cost of Ownership (TCO) analysis to demonstrate the significant cost benefits of cloud adoption over on-premises infrastructure. Students gained insights into cloud deployment architectures, including instance lifecycle management, image deployment, secure access mechanisms, and network configuration using Virtual Private Clouds (VPC), security groups, network ACLs, and internet gateways.

Practical aspects of infrastructure optimization were addressed through case studies comparing on-premises and cloud environments. Key cost optimization strategies such as right-sizing resources, leveraging reserved capacity, increasing elasticity by shutting down idle instances, and continuous monitoring using cloud-native tools were discussed in detail. The SDP further introduced containerization platforms, focusing on Docker-based environments and container orchestration services, enabling scalable application deployment without managing underlying cluster infrastructure.

Overall, the SDP equipped students with a comprehensive understanding of cloud architectures, storage systems, deployment models, pricing strategies, security mechanisms, and containerized application platforms, thereby strengthening their readiness for industry practices and advanced academic projects.

- **Faculty Enrichment Program:**

Dr. Sajal Saha had an interactive session with the faculty members of the CSE department, along with Dr. Ripinjoy Gogoi, dean of SET, The Assam Kaziranga University. Dr. Saha discussed the various longitudinal and transitional research scopes with the faculty members. Encouraging the faculties to work more on student startups and also project-based learning was also the scope of the discussion. Saha also discussed TRL levels in project proposals, alongwith shedding light on various government-funded research projects to the faculty members. Discussing mostly the scopes of AI, VLSI, and Quantum research. Dr Saha enlightened the faculty to opt for different SERB and DST projects. Dr Saha also gave ideas on how to collaborate with industrial research, such as NERIST, NRL, etc. Winding up the discussion, Dr. Sajal Saha discussed the funding opportunities from organizations such as SERB/ANRF, DST, MeiTY, etc.

6. Program Outcomes:

- Improved technical understanding of cloud platforms.
- Enhanced research orientation.
- Increased awareness of funding opportunities.
- Promotion of interdisciplinary collaboration.

- Motivation for startups and applied research.

7. Participant Feedback:

The Student Development Program on Cloud Computing received overwhelmingly positive feedback from the participants, indicating a high level of satisfaction with both the content and delivery of the sessions. Students commended the resource person for strong subject expertise, clear explanation of concepts, and effective integration of real-world examples, which significantly enhanced their understanding of cloud computing fundamentals. The interactive teaching approach, approachability in addressing doubts, and emphasis on conceptual clarity were widely appreciated. Participants also highlighted the value of practical exposure and hands-on learning, noting that the program contributed meaningfully to their technical competence and career preparedness. While a small number of students suggested incorporating additional live demonstrations and optimizing session duration for improved engagement, the overall feedback reflects excellent satisfaction levels. A majority of participants expressed their willingness to recommend similar programs for future batches, affirming that the SDP successfully strengthened foundational knowledge and supported students' professional development.

8. Photo Gallery:

This section presents selected photographs capturing key moments of the Student Development Program and Faculty Enrichment Program, highlighting interactive sessions, technical discussions, and participant engagement.

The images reflect the collaborative learning environment, practical exposure, and active involvement of students and faculty throughout the program.

9. Students Participants:

1. **Barbi Boruah**
2. **Amiyo Kumar Roy**
3. **Kabyashree Das**
4. **Khalid Ahmed**
5. **Md Abdul Sohaib**
6. **Amandeep Singh**
7. **Bishal Duarah**
8. **Biswajit Gogoi**
9. **Nidhi Kumari**
10. **Riya Biswas**
11. **Laishram Alice Devi**
12. **Mohibul Islam Khan**
13. **Riki Bora**
14. **Phrangboklang Malngiang**
15. **Tanishka Boruah**
16. **Partha Sarathi Nath**
17. **Ashok Bahadur Saru**
18. **Kushal Rayamajhi**
19. **Bishal Saikia**
20. **Bandeep Gohain**
21. **Priya Saikia**
22. **Kripal Kishore Bora**
23. **Kinjal Chetry**
24. **Rishikesh Dutta**
25. **Parash Jyoti Boruah**
26. **Bristi Borah**
27. **Amili Borah**
28. **Damini Saikia**
29. **Tanmoyjit Boruah**
30. **Pranjal Nath**
31. **Gauranga Dutta**
32. **Nandita Das**
33. **Jyotishman Saikia**
34. **Samiran Upadhyay**
35. **Sharat Chandra Chetia**
36. **Dipu Borah**
37. **Monuj Gogoi**
38. **Junti Bonik**
39. **Angad Phukan**
40. **Nilav Nayan Baruah**
41. **Nishanta Baruah**
42. **Prince Soni**
43. **Amritanshu Kumar Jha**
44. **Gaurav Borthakur**
45. **Moon Moni Narzary**
46. **Birinchi Chutia**
47. **Washim Ahmed**
48. **Adarsh Sharma**
49. **Bishal Ghosh**
50. **Aman Talukdar**
51. **Abhisekh Tukuria**
52. **Mohammed Wasim Ahmed.**
53. **Rajat Ray**
54. **Riddhiman Puzari**
55. **Jaspreet Singh**
56. **Dhruba Jyoti Hazarika**
57. **Dayyan Waseem**
58. **Dhruvajyoti Bordoloi**
59. **Bastab Bhuyan**
60. **Ujwal Thakur**
61. **Samita Baishya**
62. **Rahul Hazarika**
63. **Bijoy Jyoti Sinha**
64. **Raj Saikia**
65. **Rineeta Deuri**
66. **Himangshu Shekhar Gogoi**
67. **Gairanlung Ruangmei**
68. **Kunal Jit Das**
69. **Lakshyajit Kalita**
70. **Debanga Dutta**
71. **Koushik Mahanta**
72. **Adil Mahfuj**
73. **Vivek Kumar Gupta**
74. **Plabita Hazarika**
75. **Mayur Krishna Dev Borah**
76. **Zabed Salim**

77. Mahesh Rana
78. Maman Baruah
79. Keshar Sarki
80. Sujal Acharya
81. Tanmay Thakur
82. Md Sahil Khan
83. Chandan Sarmah
84. Nikika V Assumi
85. Chubaningshila .
86. Adity Changmai
87. Ankit Mishra
88. Prabal Kalita
89. Ayush Rai
90. Seuj Saikia
91. Visier Vivian Sogotsu
92. Partha Pratim Borthakur
93. Kughato Jakhalu
94. Ankita Nag
95. Chuhanee Hazarika
96. Suman Kalita
97. Monikanto Kurmi
98. Prince Prasad Yadav
99. Argha Das
100. Ankita Mandal
101. Pranjal Shahi
102. Bidyut Bikash Sarmah
103. Udeepta Dehingia
104. Jerimiah Nikhla
105. Anima Kumari
106. N Manshing Phom
107. Rishu Sapkota
108. Pasangyanten Lama
109. Nitul Bora
110. Ariful Islam
111. Alhaam Rijjwan
112. Nishita Gogoi
113. Autree Phukan
114. Sanjana Chetry
115. Proshiddha Dutta
116. Parismita Sonowal
117. Priyanka Saikia
118. Ahiran Saikia
119. Bakhamkor Shisha Shangrang
120. Manash Jyoti Kakoti
121. Wankmenlang Nongbsap
122. Namrata Gogoi
123. Pratyush Neog
124. Ayushman Chakraborty
125. Debasish Borah
126. Bhargab Protim Borah
127. Spriha Gogoi
128. Deep Tanti
129. Elvisa Kennao
130. Prashant Newar
131. Kivibo L Chophi
132. Dibyanshu Gogoi
133. Probal Joti Borah
134. Dibakar Chetry
135. Nilotpal Baruah
136. Probal Boruah
137. Risielie Kielienyii
138. Parakh Dehingia
139. Madhurjya Kashyap
140. Mridupawan Nath
141. Uday Bhaskar Dutta
142. Debanga Rajan Baruah
143. Sujal Prasad Sharma
144. Rickop Jyoti Das
145. Sanu Kar
146. Akash Karki
147. Bitu Pathak
148. Ayonjyoti Charingia Phukon
149. Fardin Abbas Patuwari
150. Aditya Kumar
151. Dhrinal Boro
152. Mhalelhoutuo Mezhu
153. Tanbi Mustak
154. Karan Das

155. **Aman Saikia**
156. **Farhana Sofika Begum**
157. **Aayush Sharma**
158. **Mecieto Rhetso**
159. **Madhurjya Mohan Saikia**
160. **Bituponbitupon Borah**
161. **Anubhav Ananya**
162. **Debashish Saikia**
163. **Sahil Rahman**
164. **Arif Akram**
165. **Dedipya Dutta**
166. **Shiluakum Shilu**
167. **Manish Bharadwaj**
168. **Mebajurishisha Syiemiingbah**
169. **Neha Basumatary**
170. **Mumstar Nongtdu**
171. **Mrinmoy Baruah**
172. **Sk Ariful Hasan**
173. **Nazim Rahman**
174. **Manob Jyoti Singha**
175. **Swapnaneel Kumar**
176. **Jayden Th Nonglait**
177. **Chandril Garg**
178. **Amarpreet Singh Saggu**
179. **Bishwajyoti Singha**
180. **Mayukh Shivam**
181. **Sh Priyaranjan Sharma**
182. **Rajdeep Roy**
183. **Raj Sekhar Baruah**

10. Conclusion:

The Student Development Program (SDP) and Faculty Enrichment Program (FEP) on Emerging Technologies, Cloud Computing, and Research Translation successfully achieved their intended objectives by strengthening students' technical competencies while simultaneously enhancing faculty awareness of contemporary research directions and funding opportunities. The comprehensive coverage of cloud computing architectures, deployment models, cost optimization strategies, and containerized platforms provided students with valuable industry-relevant exposure, thereby improving their career readiness and practical understanding. In parallel, the Faculty Enrichment sessions fostered meaningful discussions on translational research, Technology Readiness Levels, interdisciplinary collaboration, and government-funded project avenues, motivating faculty members toward applied research and innovation-driven initiatives. The overwhelmingly positive participant feedback reflects the effectiveness of the program design and delivery. Overall, the SDP–FEP initiative served as a significant step toward bridging academic learning with real-world applications, promoting research culture, and encouraging startup-oriented and project-based learning, thereby contributing constructively to institutional academic and professional development.

Thank You