

AI/ML Deep Tech Labs Case Study

Clients



BVRITH

ESTD 2012

BVRIT HYDERABAD COLLEGE OF ENGINEERING FOR WOMEN

COUNSELLING CODE : **BVRW**



SVECW

Shri Vishnu Engineering College For Women (Autonomous)

Vishnupur, Bhimavaram ,Pin:534202

Technology Partner



Implementation Partner



Challenge

Sri Vishnu Educational Society's BVRITH & SVECW are part of one of the largest technical education group in the Telugu States. The colleges have recently got provision for new engineering branches like AI/ML, Data Science, IoT & Cyber Security.

To cater to these new branches like AI/ML, the colleges had the following challenges:

- Costs to set up High computing performance labs
- Remote access of labs to students
- Faculty expertise/Curriculum development as per industry standards
- No Platform like Sage Maker to conduct and evaluate experiments on these Emerging Technologies.

Solution

As per the latest UGC guidelines, the technical institutions across PAN India are supposed to establish Simulation based Virtual Labs on Cloud through AWS etc.

BVRITH & SVCEW require Virtual Labs to support their Deep Tech course on AI/ML to start with. AWS & L4G are proposing a complete solution for the requirement including Virtual Labs.

The solution has been developed by Amazon Web Services (AWS) and L4G.

The solution comprises five elements –

- Curricular Support
- Faculty Training
- Virtual Labs
- Industry Connect
- Branding

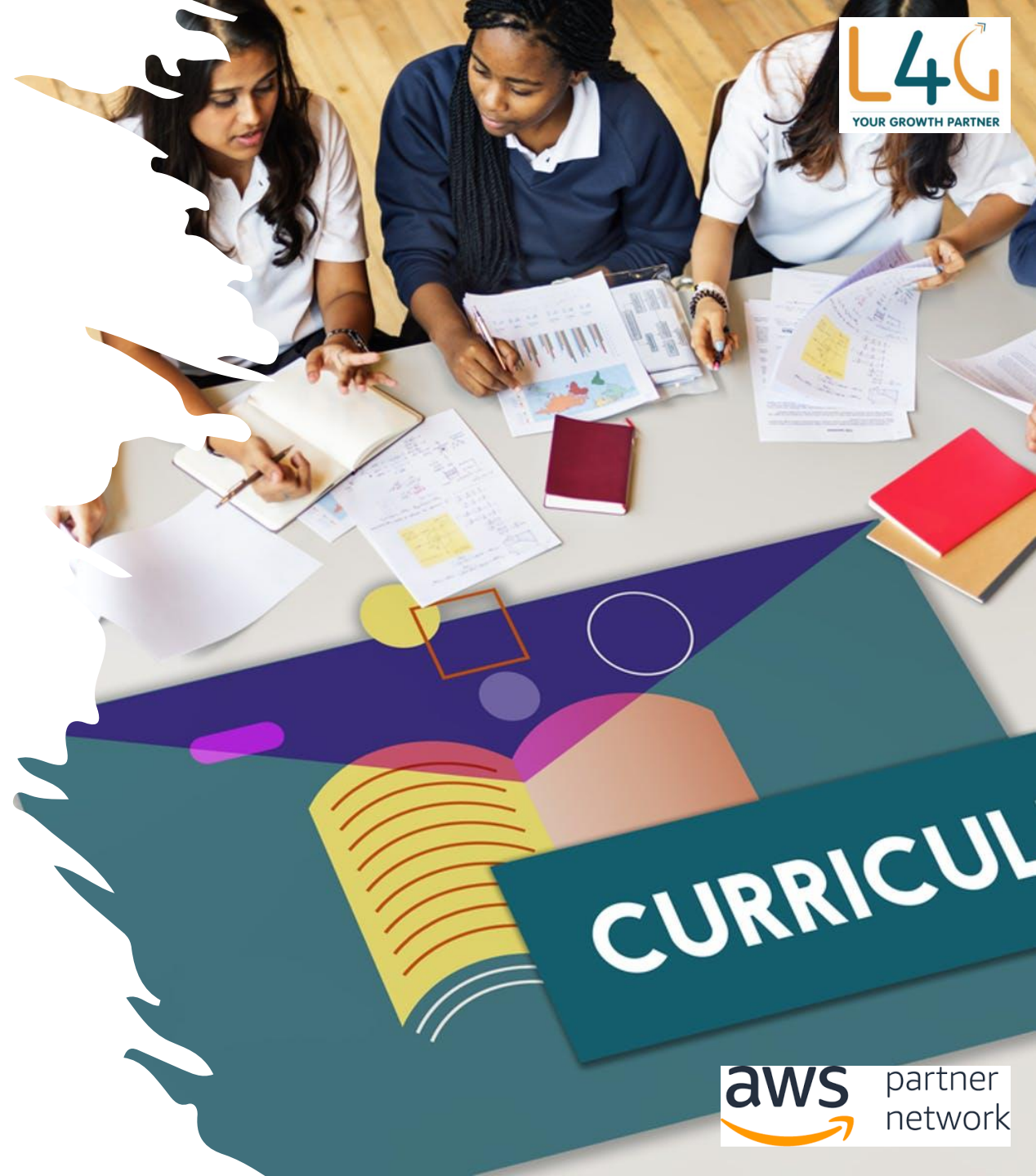




Curricular Support

The AWS Technical Specialist team & L4G Team can assist the faculty in identifying the correct lab cycles, projects and data sets based on the syllabus followed by the Institute. The Institute can choose one or more of these to be included in each of the semesters.

- Essentials of Statistics & Data Science
- Deep dive into Machine Learning & Deep Learning
- Applications of Machine Learning & Deep Learning
- Capstone Projects



Faculty Training

The AWS Technical Specialist team & L4G Learning and Development Team will conduct a one week online Faculty training program through the SageMaker Immersion. It will consist of theory and hands-on practice on the projects on SageMaker.

AWS & L4G will create a practice labs for the Faculty members to practice during this workshop.

The AWS services used in this lab are made available at no-cost as part of our commitment to Faculty development.

Virtual Labs

The Deep Tech Virtual Labs will be created on Amazon SageMaker. L4G Technical Team will deploy these labs for the Institute on Moodle.

The features of the labs are:

- Integrated user interface and a single sign-on for students and faculty through their existing Moodle deployment.
- Access to predefined configuration of the virtual labs
- Grouping based on branch, section, or any other cohort that the college chooses to have
- Flexibility in pricing as per the configuration approved by the college for each group
- Control overall security and access protocols
- Real-time dashboards to monitor all stakeholders such as students, groups, faculty members, etc.
- Integrated access to notebooks, algorithms, blogs, and tutorials
- Exclusive GPU access to students as defined in the virtual lab specifications.

Industry Connect

L4G & AWS enables a Industry connect to the college in the form of:

- Hackathons
- Virtual Job Fairs
- Executive Connect
- Exclusive Events





Branding

L4G & AWS enables a brand connect to the college in the form of:

- AI/ML Deep Tech Virtual Labs powered by AWS Branding
- Industry Alignment
- Lab Environment
- Joint Marketing Collaterals
- Use Cases

Cost Comparison

Parameter	Capital Expenditure in INR	Operational Expenditure (Rental for 3 Years) - INR	Operational Expenditure (AWS Cloud for 3 Years) - INR
To set up a 60 systems lab	12000000	5400000	1080000
Power	3600000	3600000	720000
Admin Staff	900000	900000	0
Service & Maintenance	360000	360000	360000
Total	16860000	10260000	2160000
Comparison	8X	5X	X
	On Premise	On Premise	Cloud

Benefits

Shri Vishnu Educational Society's BVRITH & SVECW are one of the early adaptors of the Deep Tech Virtual Labs for AI & ML. They are also working towards creating virtual labs for Data Science, IoT, Cyber Security.

The benefits of the AI/ML Virtual Labs are:

- Zero Upfront Costs
- Scalable
- Agile
- Remote Access
- No risk of technology obsolescence
- 80% cheaper than traditional labs.





Thank You

aws@l4g.in | Balaji – 781109024 | Naga Babu - 9553770066

