



User Workshop – 2023 (In coordination with NVIDIA)

In online mode



*Workshop is open to all interested participants

Agenda:

Description	Date and Duration
<ul style="list-style-type: none"> • Introduction to NPSF and AIRAWAT-PSAI Infrastructure; System architecture and Composition; Accessing the system (VPN and then over ssh); Slurm Resources, policies and job submission, Accessing Jupyter Notebook, Relevant advisories used so far and common issues and their resolution steps before approaching NPSF for support • Support Session & QA 	24th July (Monday) 10:00 AM – 12:00 PM
<ul style="list-style-type: none"> • Accelerated Computing Overview (HPC/AI/HPC+AI/Quantum) and Networking including H/W & S/W Overview (1-2 Slides for A100/DGX/SuperPOD, DLFW, Top10 HPC Apps, Quantum, Modulus/Forecastnet, LLM/Speech), Reference Case Study of SuperPOD for Large Scale Workload • NGC, SLURM (Batch/Interactive Job), Enroot & Job Scheduling on AIRAWAT-PSAI, Profiling of HPC/AI Jobs [Live Demo] • Support Session & QA 	25th July (Tuesday) 10:00 AM-1:15 PM
<ul style="list-style-type: none"> • Transformers NLP - Multi-GPU/Multi-Node Best Practices for Training in PyTorch Overview of best practises TF • Underlying framework: PyTorch; Training of custom FRS model on multiple-GPUs on AIRAWAT-PSAI node with PyTorch Lightning framework; Inferencing of custom FRS model; Metropolis; DeepStream; TAO Toolkit • Support Session & QA 	31st July (Monday) 10:00 AM-12:15 PM
<ul style="list-style-type: none"> • HPC + Quantum Application with Live Demo • AI in Weather: Modulus & Forecastnet • Support Session & QA 	1st Aug (Tuesday) 10:00 AM-11:45 PM
<ul style="list-style-type: none"> • Introduction to NeMo. Introduction & Research Advancements in LLM/GPT • Introduction & Research Advancements in ASR & Production Usage 	7th Aug (Monday) 10:00 AM-1:30 PM
<ul style="list-style-type: none"> • LLM pretraining using Megatron-LM • PEFT For LLM Using NeMo • Support Session & QA 	8th Aug (Tuesday) 10:00 AM-1:15 PM
<ul style="list-style-type: none"> • Introduction & Research Advancements in Translation & Production Usage • Introduction & Research Advancements in Text to Speech & Production Usage 	14th Aug (Monday) 10:00 AM-12:15 PM

- Support Session & QA

Speakers:

Speaker Name	Designation	Organization
Pankaj Dorlikar	Operation Head, NPSF	CDAC Pune
Suresh Tekumatla	Team Lead, NPSF	CDAC Pune
Santosh K.	System engineer	CDAC Pune
Manisha Yadhav	System engineer	CDAC Pune
Aakash Negi	Application engineer	CDAC Pune

Speaker Name	Designation	Organization
Megh Makwana	Applied Engineering Manager - SAE	NVIDIA INDIA
Manish Modani	Principal Solution Architect	NVIDIA INDIA
Raman Ramaneswaram	Deep Learning Solution Architect	NVIDIA INDIA
Saurav Agarwal	Senior architect and seasoned data engineer	NVIDIA INDIA
Prakruthi Gowda	Deep Learning Solution Architect	NVIDIA INDIA
Arihenth Vijayan	Solution Architect	NVIDIA INDIA
Ayush Raj	Senior Machine Learning Engineer	NVIDIA INDIA
Abhishek Choudhary	Senior Platform Engineer	NVIDIA INDIA
Muthukumaravel	Senior Machine Learning Engineer	NVIDIA INDIA

Organizing Committee:



Rishi Pathak, Joint Director
Pankaj Dorlikar, Joint Director
T. Sureshbabu, Project Engineer
Santhosh Kumar, Project Engineer
Manisha Yadav, Project Engineer
Yogesh Mustapure, Project Engineer
Aakash Negi, Project Engineer

Dr. Manish Modani, PSA
Vivek Kumar Rai, BM
Raman Ramaneswaram, DLSA
Saurav Agarwal, SA & SDE
Meghana Moudgalya, PM

Please send email to Npsf Outreach “npsf-outreach@cdac.in” for any query/more information.

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