OVERVIEW OF INTEL AI TOOLS AND FRAMEWORK OPTIMIZATIONS

Event No	AM001
Organizing Department	Artificial Intelligenceand Machine Learning
Associate Dept. | NSC	Artificial Intelligenceand Machine Learning
Date	19/06/2023
Time	07:00 PM to 08:00 PM
Event Type	Expert Discussion (Online)
Event Level	Institute
Venue	Online
Meeting Medium	
Meeting Link	https://us06web.zoom.us/j/85841626026?pwd=cWdPTmZhcERVTXU2NFJ3Q0ZXUE1sdz09
Total Participants	79
Faculty - Internal	6
Students - Internal	70
Other Participants	3

Related SDG

Resource Persons

Sl	Type	Name	Designation	Company	Email	Phone
1	Resource Person	Ms Ramya Ravi	AI/ML Software Marketing Engineer	Intel Corporation, USA	ramyaravi1971@gmail.com	xxxxxxxxxx

Involved Staffs

Sl	Name	Role
1	Karthikeyan S	Convenor
2	Pandiya Rajan G	Coordinator

Outcome

An overview of the different software tools and libraries provided by Intel for AI development, such as Intel® Distribution of OpenVINO™, Intel® oneAPI, Intel® Math Kernel Library (MKL), and Intel® Neural Compute Stick.
Information about the frameworks that are optimized to work efficiently with Intel hardware, such as TensorFlow, PyTorch, and MXNet. It may highlight the specific optimizations and features provided for each framework.
Details on the performance optimizations implemented by Intel to accelerate AI workloads. This could include hardware-specific optimizations, such as vectorization, parallelism, and deep learning-specific optimizations, like INT8 quantization and model compression.
Insights into Intel's tools and techniques for optimizing model deployment and inference, including edge computing scenarios, real-time inference, and distributed inference.
Information about resources available to developers, such as code samples, documentation, and support forums, to help them leverage Intel's AI tools effectively.

Event Summary

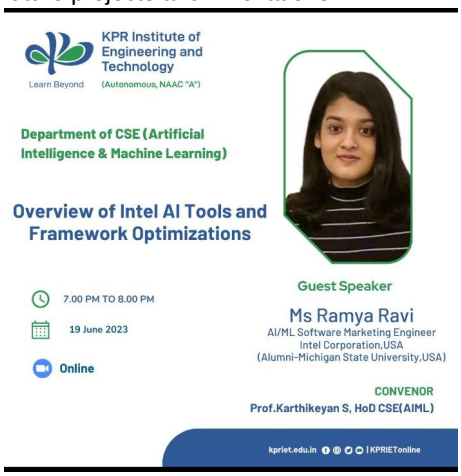
Department of CSE (Artificial Intelligence and Machine Learning), KPR Institute of Engineering and Technology organized an Industry expert Talk by Ms Ramya Ravi, Intel Corporation, USA on 19th June 2023, 7 PM (IST). She delivered a talk on 'Overview of Intel AI Tools and Framework Optimizations' to our AIML Students.

The talk provided a comprehensive insight into advancements and code optimizations in AI Tools and frameworks delivered by Intel. She

discussed the areas and capabilities of these tools in enhancing AI Performance, accelerating model training and inference, and optimizing workloads for different hardware architectures(CPU/GPU).

Ms Ramya elaborated on Intel's commitment to enabling developers to leverage the power of AI through their tools and frameworks. She shared valuable insights into the features and popular Intel AI Tools such as Intel AI Analytics Toolkit, AI Framework Optimization and Libraries. It was very helpful for the students who are interested in implementing AI and ML Frameworks in real time.
We have learned various AI Analytical toolkits available with intel toolkits such as End-to-End AI and Machine Learning Acceleration:
Intel® Distribution for Python *with highly optimized sci-kit-learn*
Intel® Extension for PyTorch*
Intel® Extension for TensorFlow*
Intel® Optimization for XGBoost*
Intel® Optimization of Modin *(available through Anaconda* only)

Overall, Ms Ramya Ravi's talk was very informative and inspiring. All the attendees gained a comprehensive understanding of the Intel AI Tools and various frameworks' optimization. The Session server is a valuable opportunity to learn from industry experts and explore the possibilities of leveraging Intel's AI Solutions for future projects and innovations.



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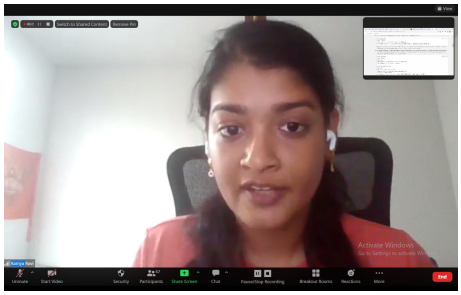

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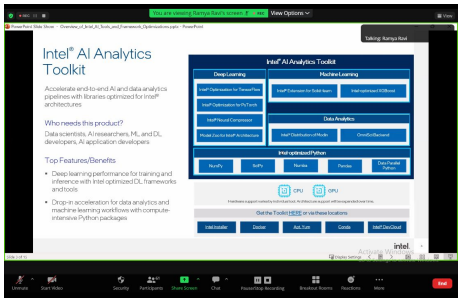

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