

## Two Days FDP on 'Introduction to GPU Computing using CUDA'

On 16 & 17 Feb 2019 10am to 5pm

### Registration Form

Name:.....  
Institution:.....  
Department:.....  
Year: .....

Address:.....  
.....  
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Mobile:.....  
E-mail ID:.....  
Amount:.....  
Transaction ID.....  
Date:.....  
Signature of participant.....

### Registration Details

- ◆ Registration charges per participant: 1600/- (Including GST)
- ◆ Registration charges include course fees, Lunch, certificate of participation and course material.
- ◆ Registration charges will be accepted in the form of cash/online along with duly filled registration form.
- ◆ For online payment can be transferred to "Vishwakarma Institute of Technology" (A/c No-3087149857), Central bank of India with IFSC CBIN0282402. Email the UTR No to the Coordinator email addresses.

### Chief Patrons

Shri Rajkumarji Agrawal  
Chairman, BRAC, Pune

Shri Bajrangdas Lohiya  
Vice Chairman, VI, Pune

Shri Bharat Agrawal  
Managing Trustee, BRAC, Pune

Prof. (Dr.) Rajesh Jalnekar  
Director, VIT, Pune

### Convener

Prof. (Dr.) Premanand Ghadekar  
Head, Department of IT and MCA,  
VIT, Pune

### Workshop Coordinators

Prof. Shital P. Dongre      Prof. Deepali Joshi  
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Assistant Professor,  
IT & MCA Department,  
VIT, Pune



Bansilal Ramnath Agarwal Charitable Trust's  
**Vishwakarma Institute of Technology,**  
**Pune**

(An Autonomous Institute affiliated to Savitribai Phule Pune Uni)

FDP

On

## 'Introduction to GPU Computing Using CUDA'

With Hands-on training on Tesla  
V-100 GPU

Organized by  
Department of IT & MCA



By

 NVIDIA.

**GPU**  
RESEARCH  
CENTER

## About The Institute and Department

**Vishwakarma Institute of Technology, Pune**, a highly commendable private institute, occupies a place of pride amongst the premier technical institutes of the western region of India. Established in 1983, financed and run by Bansilal Ramnath Agrawal Charitable Trust, it is affiliated to Savitribai Phule Pune University. VIT acquired A++ grade in NAAC. The institute runs 9 Under Graduate, 8 Post Graduate & 6 Ph.D. programs which are affiliated to the university. The institution has been awarded ISO 9001-2008 certification by BSI, India & granted autonomous status since academic year 2008-2009. The institute has marched towards the pinnacle of glory through its remarkable achievement & laurels in the field of engineering education. It is also the first institute under the umbrella of Pune region to offer a full course on GPU computing at UG and PG level.

The **Department of Information Technology and MCA** is running B.Tech (IT) and MCA course. We have center of excellence in Machine Learning and Deep Learning, GPU Research Center, Center of Excellence in Software Development and High Performance GPU Computing facility.

## About the workshop

Today single threaded programming alone is not sufficient to solve compute intensive real world problems, specifically related to Data Analysis, ML and DL. In addition we want cheaper and energy efficient hardware for solving them. GPU satisfy this need by providing thousands of computing cores at relatively small cost with and less power consumption as compared to CPUs. Along with these features they can be easily programmed using platforms like CUDA to harness their computing potential. This workshop is a very sincere attempt to make you familiar with GPU computing using CUDA. This workshop will also help in using computational power of Tesla V100 to solve compute intensive problems.

## Contents

- Introduction to GPU architecture & programming model
- Kernel execution on GPU, Compiling and executing CUDA programs, Use of GPU memories, CUDA code optimization
- Hand-on with Tesla V100 GPU having 5000+ cores.

## Features

- ◆ More focus on hands-on
- ◆ Well-designed course content
- ◆ Highly appreciated content delivery
- ◆ Well-equipped lab facility

## Resource Person

### Dr. Priyadarshan Dhabe.

Principal Investigator, GPU Research Center,  
Assistant Professor, IT & MCA Dept, VIT, Pune.

## Venue

Building No. 1,  
Room No 1309  
Department of IT & MCA,  
Vishwakarma Institute of Technology,  
666, Upper Indira Nagar, Bibwewadi, Pune

## Introduction of Resource Person



**Dr. Priyadarshan Dhabe** is currently working as Assistant professor in Information Technology and MCA, at Vishwakarma Institute of Technology, Pune. He obtained doctorate from Indian Institute of Technology, Bombay, on polynomial global optimization methods based on Bernstein polynomials and GPU computing, under Prof. P S V Nataraj. He is PI of NVIDIA's GPU Research Center at VIT, Pune. He also worked as consultant to Nextremer Solutions Pvt. Ltd, Pune for GPU computing in 2015. He has seventeen years of teaching experience and guided around twenty masters' students in the areas of pattern recognition, database normalization, fuzzy neural networks, and GPU computing. He conducted many CUDA workshops and delivered expert lectures in GPU computing.

## For registration contact

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