ANIL NEERUKONDA INSTITUTE OF TEHNOLOGY & SCIENCES

(AUTONOMOUS)

SANGIVALASA, BHEEMUNIPATNAM [MANDAL] , VISAKHAPATNAM [DISTRICT]

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Date : 10th August,2016

To
Principal
ANITS

Sub:- Permission for conducting "1 week Hands on Training on "**Parallel Application Development Techniques**" from Sep 19th 2016 – Sep 24th , 2016 .

Parallel Computing is gaining importance from last five years and for next 10 years the demand will further accelerate.

Keeping in view on the above and also to improve the skill set of the student and make them more employable, Department of CSE and ANITS – CSI Student branch with support from CSI Division – V (Education and Research) has taken a initiative for conducting a **1 week (20 Hours)** Hands on Training programme on "**Parallel Application Development Techniques**".

Keeping in view of the benefits of the student, I request you to permit us to conduct the workshop after college hours from 3.30 – 5.30 p.m. Detailed Brochure of the course is attached for your kind perusal .

Hod, CSE
Dr.Suresh Chandra Satapathy

Resource Person
Mr S Ratan Kumar,
Associate Professor,CSE Dept.

Hod to Principal 17/8/16

Head of the Department of Computer Science & Engineering
Anil Neerukonda Institute of Technology & Sciences
Sangivalasa, Visakhapatnam Dist.

Enclosure :
1. Brochure

Anil Neerukonda Institute of Technology and Sciences 5601 SANGIVALASA Dt. 17.8.16

Permitted
18/8/16

Hands on Training in
"Parallel Application Development Techniques"

Topics Covered

Pthread API
RPCGEN
RPC API
GPU Computing
CUDA Programming

Course Highlights

Duration : **1 week**
Timings : **3.30 p.m. - 5.30 p.m.**
Days : **Monday – Friday**
Saturday(8.40am -3 pm)
Eligibility : **Students from 2nd, 3rd and 4th Year irrespective of branch**
Course Fee : **Rs.700 (Non CSI)**
Rs.600 (CSI member)
Student Strength : **40**

Resource Person :

1. **Mr S Ratan Kumar**, B Tech,M Tech,(Ph.D)
   Associate Professor ,CSE Dept ANITS

- Certificates will be issued from CSI
- Study material
- Registration open from 31st August 8.40 am -10th September ,11.30 PM
- First Come First Serve
- Batch Starting from 19th **September 2016**

Contact : sratankumar.cse@anits.edu.in 9052492777

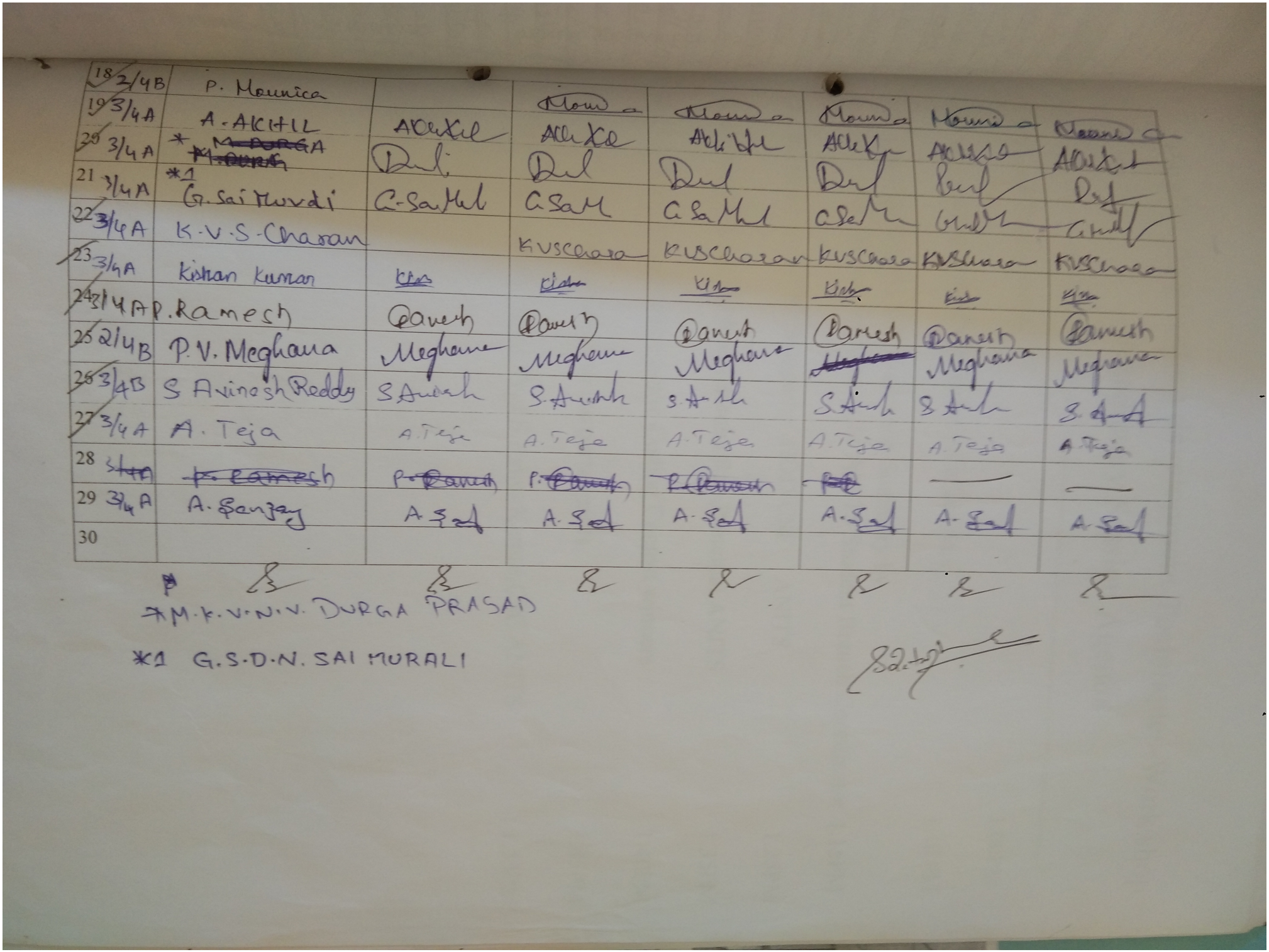
ORGANISED BY

Department of CSE &
ANITS CSI- Student Branch
With support from CSI Division-V (Education and Research)

STUDENT LOG SHEET FOR THE WORK SHOP ON PARALLEL APPLICATION DEVELOPMENT TECHNIQUES

CONDUCTED BY: MR. S. RATAN KUMAR VENUE: SIR LAB/ECLASS

S.NO	Name of the Student	19-09-16 (Monday)	20-09-16 (Tuesday)	21-09-16 (Wednesday)	22-09-16 (Thursday)	23-0916 (Friday)	24-09-16 (Saturday)
1	1/4-B G. Prudhvi Raj	G. Prudhvi	G. Prudhvi	G. Prudhvi Raj	G. Prudhvi	G. Prudhvi	G. Prudhvi
2	3/4-A K.N.S. Mouthya	K. Mouthya	K. Mouthya	K. Mouthya	K. Mouthya	K. Mouthya	K. Mouthya
3	3/4-A K. Sudeepti Reddy	K. Sudeepti	K. Sudeepti	K. Sudeepti	K. Sudeepti	K. Sudeepti	K. Sudeepti
4	3/4-B T. Lohitha	T. Lohitha	T. Lohitha	T. Lohitha	T. Lohitha	T. Lohitha	T. Lohitha
5	3/4-A G. Priyanka	G. Priyanka	G. Priyanka	G. Priyanka	G. Priyanka	G. Priyanka	G. Priyanka
6	3/4-A G. Bhargavi	G. Bhargavi	G. Bhargavi	G. Bhargavi	G. Bhargavi	G. Bhargavi	G. Bhargavi
7	3/4-A P.K. Swathipriya	P. Swathi	P. Swathi	P. Swathi	P. Swathi	—	P. Swathi
8	3/4-B Y. Sailaja	Y. Sailaja	Y. Sailaja	Y. Sailaja	Y. Sailaja	Y. Sailaja	Y. Sailaja
9	2/4-C S. Bhavya	S. Bhavya.	S. Bhavya.	S. Bhavya.	S. Bhavya	S. Bhavya.	S. Bhavya.
10	2/4-C S. Vaishnavi	S. Vaishnavi	S. Vaishnavi	S. Vaishnavi	S. Vaishnavi	S. Vaishnavi	S. Vaishnavi
11	3/4-A K. Haripriya	K. Hari	K. Hari	K. Hari	K. Hari	K. Hari	K. Hari
12	3/4-A L. Saudya	L. Saudya	L. Saudya	L. Saudya	L. Saudya	L. Saudya	L. Saudya
13	2/4 B Krishna Sai Joga	Krishna	Krishna	Krishna	Krishna	Krishna	Krishna
14	2/4B K. Kaishna Reddy	Kish	Kish	Kish	Kish	Kish	Kish
15	2/4C R. Praveen Kumar	R Praveen	R Praveen	R Praveen	R Praveen	R Praveen	R Praveen
16	2/4B K. Sai dinesh	Saidinesh	Saidinesh	Saidinesh	Saidinesh	Saidinesh	Saidinesh
17	2/4A G. Abhinav	Abhinav	Abhinav	Abhinav	Abhinav	Abhinav	Abhinav



18	3/4B	P. Mounica		Mounica	Mounica	Mounica	Mounica	Mounica
19	3/4A	A. AKHIL	AKhil	AKhil	AKhil	AKhil	AKhil	AKhil
20	3/4A	* ~~M. DURGA~~	Durga	Durga	Durga	Durga	Durga	Durga
21	3/4A	*1 G. Sai Murali	G. Sai Murali	G. Sai Murali	G. Sai Murali	G. Sai Murali	G. Sai Murali	G. Sai Murali
22	3/4A	K. V. S. Charan		K. V. S. Charan	K. V. S. Charan	K. V. S. Charan	K. V. S. Charan	K. V. S. Charan
23	3/4A	Kishan Kumar	Kishan	Kishan	Kishan	Kishan	Kishan	Kishan
24	3/4A	P. Ramesh	Ramesh	Ramesh	Ramesh	Ramesh	Ramesh	Ramesh
25	2/4B	P. V. Meghana	Meghana	Meghana	Meghana	~~Meghana~~	Meghana	Meghana
26	3/4B	S Avinash Reddy	S Avinash	S Avinash	S Avinash	S Avinash	S Avinash	S Avinash
27	3/4A	A. Teja	A. Teja	A. Teja	A. Teja	A. Teja	A. Teja	A. Teja
28	3/4A	~~P. Ramesh~~	~~P. Ramesh~~	~~P. Ramesh~~	~~P. Ramesh~~	~~P. Ramesh~~	—	—
29	3/4A	A. Sanjay	A. Sanjay	A. Sanjay	A. Sanjay	A. Sanjay	A. Sanjay	A. Sanjay
30								

* M. K. V. N. V. DURGA PRASAD

*1 G. S. D. N. SAI MURALI

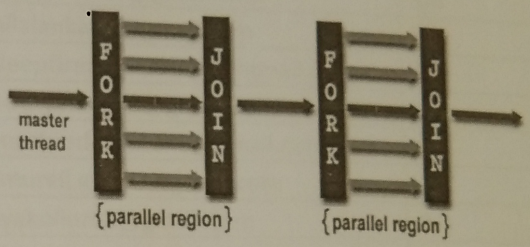
Part 3:

- Parallel Application Execution –Visualization.
- Performance monitoring of Parallel Application with Linux System Monitor.
- Performance monitoring of Parallel Application with Linux Commands.
- Parallel Application Gain Calculation.

Duration: (4 hours)

Part 4:

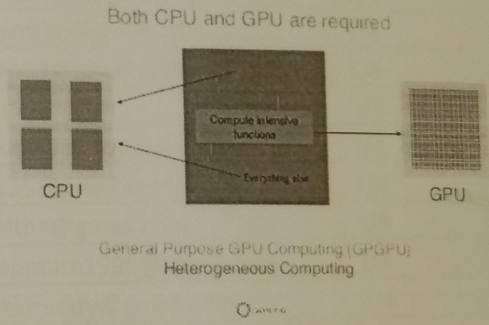
- Openmp Introduction
- Pthreads Vs Openmp
- Exercises on Searching.
- Parallel Application Gain Calculation.



Duration: (4 hours)

Part 5 :

- Introduction to Parallel application development in Hybrid memory model using GPU programming.
- GPU Computing CUDA.
- Exercises on Vector Addition, Pattern Matching.
- Parallel Application Gain Calculation.



Duration: (4 hours)

Who can attend this workshop?

Any engineering graduate with exposure to C language and basic Problem Solving Knowledge.

Workshop Key Takeaways

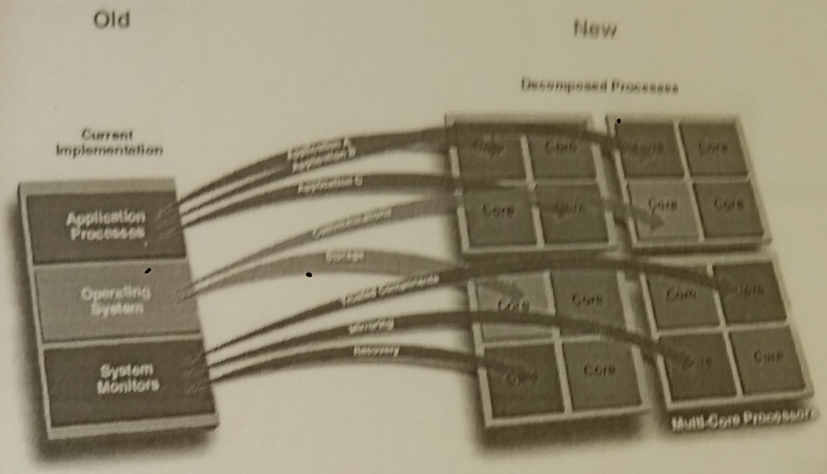
- An understanding about Pthread API
- An understanding about Openmp
- Basic Concepts of GPU Computing
- CUDA Programming
- Tools for understanding the Parallel Application Performance.

Speaker: Mr S Ratan Kumar,Assoicate Professor, CSE Dept, ANITS.
Venue: E-Class Room, First Floor,CSE Dept
No of Seats:40 Only (First Come First Serve Basis)

Parallel Application development Techniques

Why to attend the workshop?

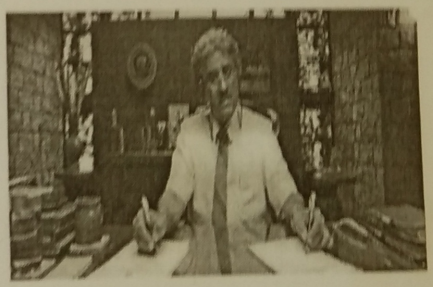
In the current ***BIG DATA*** world every computing device from Smart phones to Servers has multi core hardware to process the data. The traditional sequential programming techniques are failed to the advantage of these multiple cores in providing required performance. So every application developer has to know developing applications using Parallel programming Techniques.



[http://www.syprisresearch.com/home/secure-computing-architecture]

This workshop introduces different Parallel Application development techniques to the participants with the schedule given below.

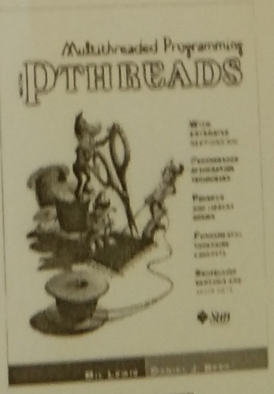
Part 1 :



- Event Inaugural
- Goals of Parallel Programming
- Problem Decomposition
- Algorithm Selection
- Computational Thinking
- Practice on Pre requisites

Duration: (4 hours)

Part 2:



- Introduction to different Parallel Programming Models.
- Parallel Application development in shared memory model using **Pthread** Library.
- Exercises on Matrix addition, String Search.

Duration: (4 hours)

Speaker: Mr S Ratan Kumar,Assoicate Professor, CSE Dept, ANITS.
Venue: E-Class Room, First Floor,CSE Dept
No of Seats:40 Only (First Come First Serve Basis)