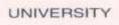
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OF MYSORE

VISHWAVIDYANILAYA KARYA SOUDHA GRAWFORD HALL POST BOX NO 406 MYSORE-579 006

No.AC.2(S)/384/14-15

Dated: 10-06-2015

REGISTRAR

NOTIFICATION

Sub: Introduction of Diploma Certification course on High performance Computing (HPC).

Ref: 1. Proceedings of Faculty of Science & Technology Meeting held on 02-02-2015.

2. Proceedings of the Meeting of Academic Council held on 27-03-2015.

The Board of Studies in Computer Science (PG) at its meeting held on 21-11-2014 has resolved to introduce the Diploma Certification course on High performance Computing (HPC) to be offered by the department of studies in Computer Science in collaboration with HPC lab. set up under UPE grants. This will be effect from 2015-16.

The Faculty of Science and Technology and the Academic Council at their meetings held on 02-02-2015 and 27-03-2015 respectively have approved the above proposals and the same is notified.

The Details of Diploma Certification course on High performance Computing (HPC) is annexed. Al marille.

DRAFT APPROVED BY THE REGISTRAR

To

The Registrar (Evaluation), University of Mysore, Mysore

The Chairperson, BOS/DOS in Computer Science, MGM.

The Dean, Faculty of Science & Technology, DOS in Earth Science, MGM.

The Director, College Development Council, UOM, Mysore,

The Coordinator, Online & Outreach programme, Parakalamatta, MGM.

The Deputy/Assistant Registrar (Evaluation), University of Mysore, Mysore.

The Supdt A.B., Academic Section / PMEB, UOM., Mysore.

The P.A. to the Vice-Chancellor/Registrar/Registrar(Evaluation), UOM., Mysore.

The Case Worker, AC.7, Academic Section, University of Mysore, Mysore.
 The Section Guard File(Supdt AC.2), A.B., A.C., UOM.

11. The Schedule File.

Introduction of Diploma Certification Course on High Performance Computing

(It is in connection with the HPC lab set up under UPE grants)

Preamble

University of Mysore has come up with a High Performance Computing (HPC) lab which is set up to offer the state of art research and training programs. A HPC lab is set up in the Department of Computer Science and it is made available for researchers, faculty members and students. This project is supported by University with potential Excellence (UPE) scheme grants from University Grant Commission (UGC), New Delhi. As a part of deliverables of this project, we suggest to offer a diploma certification course on high performance computing to create awareness among youngsters on high performance computing and share knowledge on parallel processing techniques. This course is conducted at the Department of Studies in Computer Science. No examinations are conducted from the University of Mysore and No certificates are issued in convocation of University of Mysore for this course. However, department level examinations shall be conducted and a course completion certificate will be issued by the Department of Studies in Computer Science for all successful students in collaboration with High Performance Computing lab.

Course structure

Duration:	16 weeks		
Time:	Evening Batches, weekly 3 days (Total 6 hours per week)		
Eligibility:	 B.Sc. graduate with Mathematics as one of the major subject. Students perusing post graduation on regular basis can also apply. 		
Maximum intake	30		
Course Fees	To be decided by University of Mysore.		

Course offered

Sl. No.	Title of the course
Course 1	Parallel Architecture
Course 2	Parallel Programming

Syllabus

Parallel Architecture			
Sl. No	Course Content	Duration	
Unit 1	Introduction to advanced computer architecture,	08 hours of theory	
	Concept of Multiprocessors, Interconnection	and	
	networks,	4 Hrs of Practical	
	Analysis and performance metrics		
Unit 2	Parallel processing and performance tweaking on	08 hours of theory	
	multiprocessor architecture,	and	
		4 Hrs of Practical	
Unit 3	Shared memory architecture	08 hours of theory	
		and	
		4 Hrs of Practical	
Unit 4	Massage passing architecture, Network Building	08 hours of theory	
	Cluster Building	and	
		4 Hrs of Practical	

Parallel Programming			
Sl. No	Course Content	Duration	
Unit 1	Introduction to parallel programming,	04 hours of theory	
	Advanced parallel programming libraries and	and	
	compilers, Setting up Parallel Programming	08 Hrs of Practical	
	Environment.		
	Performance issues in parallel programming.		
Unit 2	Introduction to OpenMP, OpenMP using C.	04 hours of theory	
		and	
		08 Hrs of Practical	
Unit 3	Programming MPI (Message Passing Interface).	04 hours of theory	
		and	
		08 Hrs of Practical	
Unit 4	Introduction to Parallel Programming using	04 hours of theory	
	General Purpose Graphical Processing Unit	and	
	(GPGPU) with CUDA.	08 Hrs of Practical	

Regulations:

- The attendance requirement is as per the norms of the university.
- Each student shall evaluated by the respective instructor who offers the course. The evaluation of a candidate in a paper has C1, C2 and C3 components, where both C1 and C2 are purely based on continuous assessment each carrying 25 and 25 marks. The C3 component is based on the semester end examination for 50 marks. A candidate is said to be successful in a paper if he / she secures at least 40% marks due to all C1, C2 and C3 put together in that particular paper. The modalities for C1 and C2 shall be decided by the respective instructor in consultation with the department council.
- The semester end examination (C3 component) is purely based on written examination the pattern of which shall be decided by the department council.
- The candidate, who is successful in both the papers, shall be issued a certificate by the
 Department of Studies in Computer Science in collaboration with High Performance
 Computing lab. The certificate is only a completion certificate and hence no grading of
 students shall be mentioned.