



Relaxation

SC/ ST applicants will get a relaxation of 5% marks or 0.5 CPI. Reservation of seats for SC, ST, OBC and Physical Disability (PD) categories will be as per the Government of India rules.

Application Procedure

Duly filled application form, Statement of Purpose and two letters of recommendation, photocopies of mark sheets and certificates should be sent to: Convener, Ph.D. Admissions, Indian Institute of Technology Indore, M-Block, IET, DAVV Campus, Khandwa Road, Indore – 452017, M.P. Complete application should reach us on or before May 21, 2010. Application forms can be downloaded from the institute website www.iiti.ac.in Candidates applying for more than one discipline should submit a separate application for each discipline. There is no application fee. List of the shortlisted candidates will be displayed on the website by 1st June 2010. For any further information contact:

Phone : 0731-2438718; 2364182; 2361482

E-mail : phdadmissions@iiti.ac.in

Academic Calendar for the Year 2010-11

Event/Activity	Autumn Semester	Spring Semester
◆ Registration and Orientation Program for the NEW Students	July 22, 2010 (Thursday)	Jan. 3, 2011 (Monday)
◆ Registration of the OLD Students	July 23, 2010 (Friday)	
◆ Classes Begin for ALL the Students	July 26, 2010 (Monday)	Jan. 4, 2010 (Tuesday)
◆ Last Date for Late Registration with Late Fee	Aug. 2, 2010 (Monday)	Jan. 10, 2011 (Monday)
◆ Last Date for Course Adjustment	Aug. 6, 2010 (Friday)	Jan. 14, 2011 (Friday)
◆ Last Date for Submission of Application Form for MCM Scholarship	Sep. 3, 2010 (Friday)	NA
◆ Displaying the List of the Students having Short Attendance (< 80%) till Middle of the Semester	Sep 17, 2010 (Friday)	Feb. 18, 2011 (Friday)
Mid Semester Examination	Sep. 18, 2010 (Saturday) to Sep. 25, 2010 (Saturday)	Feb. 26, 2011 (Saturday) to March 5, 2011 (Saturday)
◆ Classes begin after Mid Semester Examination	Sep. 27, 2010 (Monday)	March 7, 2011 (Monday)
◆ Review of Mid Semester Performance by UGAPEC and Report to the Dean (AP)	Oct. 1, 2010 (Friday)	March 11, 2011 (Friday)
Mid Semester Break	Oct. 16, 2010 (Saturday) to Oct. 24, 2010 (Sunday)	March 12, 2011 (Saturday) to March 20, 2011 (Sunday)
◆ Last Date for the Respective Departments to Send the List of Courses to be Offered in the Next Semester along with the Names of Instructor and Slot No. etc.	Nov. 18, 2010 (Thursday)	April 20, 2011 (Wednesday)
◆ Displaying the List of Detained Students and Sending the 'XX' grade to the Academic Office	Nov. 18, 2010 (Thursday)	April 28, 2011 (Thursday)
Last Day of Teaching	Nov. 19, 2010 (Friday)	April 29, 2011 (Friday)
End Semester Examination#	Nov. 22, 2010 (Monday) to Nov. 29, 2010 (Monday)	May 2, 2011 (Monday) to May 9, 2011 (Monday)
◆ Last Date for Showing Evaluated Answer Books of the End Semester Examination	Dec. 4, 2010 (Saturday)	May 13, 2011 (Friday)
Last Date for Submission of the Grades	Dec. 6, 2010 (Monday)	May 16, 2011 (Monday)
◆ Academic Performance Evaluation by UGAPEC	Dec. 8, 2010 (Wednesday)	May 18, 2011 (Wednesday)
◆ Last Date for Request for Makeup examination (on basis of defined "Valid" reason)	Dec. 10, 2010 (Friday)	May 20, 2011 (Friday)
Makeup Examination	Dec. 20-22, 2010 (Monday to Wednesday)	May 30-June 1, 2011 (Monday to Wednesday)
Semester Break Vacations (for the Students)	Dec. 1, 2010 (Wednesday) to Dec. 26, 2010 (Sunday)	May 11, 2011 (Wednesday) to July 20, 2011 (Wednesday)
Semester Break Vacations (For the Faculty)	Dec. 13, 2010 (Monday) to Dec. 31, 2010 (Friday)	May 16, 2011 (Monday) to July 15, 2011 (Friday)

*The readers may kindly note that our website has changed from www.iitidr.ac.in to www.iiti.ac.in.

Conferences, Publications and Workshops

S.S. Ahmad, R. Alam, and R. Byers, "On Pseudospectra, Critical points and Multiple Eigenvalues of Matrix Pencils", *Siam Journal of Matrix Analysis*, vol. 31, no.4, pp. 1915-1933, 2010.

S. S. Ahmad and S. Raha, "On estimation of Transient Stochastic Stability of Linear Systems", *Journal of Stochastic and Dynamics*, vol. 10, no. 3, pp. 1-21, 2010.

C. Bharath Kumar participated in a winter school on "Community, Tribes and Modernity" organized by Indian Institute of Advanced Study, Shimla, from 22 February to 4 March 2010 at North-Eastern Hill University, Shillong; presented a paper titled "Citizenship and Multiculturalism" at the National Conference on "Social Harmony, Unity and Sustainable Peace" held at Rajiv Gandhi National Institute of Youth Development, Ministry of Youth Affairs & Sports, Sriperumbudur, from 24th to 26th March, 2010; published a paper titled "Moral Psychology of Nationalism" in the *Journal of Indian Council of Philosophical Research*, Vol. No. XXVI No.1, 2009.

Ritunesh Kumar, P. L. Dhar, Sanjeev Jain and A. K. Asati, 2009, "Comparison of the Performance of Multi Absorber Stand Alone Liquid Desiccant Air Conditioning Systems in Summer and Monsoon Conditions", 9th ISHMT-ASME Heat and Mass Transfer Conference Jan 4-6, 2010, pp. 1103-1109, Mumbai, India.

A. F. Mohed, G. Rama Murthy, and **R.B. Pachori**, "Novel orthogonal signal based decomposition of digital signals: Application to sensor fusion," *Sensors and Transducers*, vol. 114, Issue 3, pp. 56-65, March 2010.

S. K. Sahu, P. K. Das, and S. Bhattacharyya, (2010) "An experimental investigation on the quenching of a hot vertical heater by water injection at high flow rate", *Nuclear Engineering and Design*, 240, 1558-1568.

Colloquium

Prof. M. G. Nadkarni, formerly the Head of the Department of Mathematics at Mumbai University will be joining the Institute as faculty from July this year. He visited the Institute on April 19, 2010 to get to know the faculty members. During this visit he gave a colloquium talk on 'Arithmetic Progressions in Subsets of Integers'. Considering that the student audience here consists solely of first year B. Tech. students, he had chosen a topic which would be of interest even to a layman. To motivate the students further, a couple of days before the talk they were asked to solve a mathematics problem which is essentially a puzzle. Suppose the integers from 1 to 9 are classified into two classes. The problem was to

show that at least one of the classes contains three (or more) numbers in an arithmetic progression (A. P.). A hint was given to begin by considering the class, say A, to which the middle integer 5 belongs. If the class is to be free of A.P.'s, then out of 4 and 6, only one number can be in A. Similarly only one out of 3 and 7 will be in A and so on. Continuing like this, one can show that the other class, say B, would be forced to accommodate an A.P. of length 3.

There are other situations where a similar reasoning can be applied. Suppose, for example, that there is a party. Some of the persons present know each other while some pairs are total strangers. Given any six persons at the party, one can show that either there are 3 persons among them every two of whom know each other or else there are three among them no two of whom know each other. (Results of this type come under what is popularly called Ramsey Theory. It has a sort of a philosophical theme, viz. if a sufficiently large class is divided into several subclasses, then there will be some order in at least one of the subclasses.)

A few students did attempt the problem and this helped them appreciate the talk of Prof. Nadkarni. The speaker began by stating a well known theorem of van der Waerden which says that if a sufficiently long block of consecutive integers is divided into r classes then at least one of the classes contains an arithmetic progression of length k, where the integers r and k are fixed in advance. (In the puzzle above, r is 2 and k is 3.) He then stated several other theorems that are equivalent to this theorem. He concluded by stating some far reaching generalisations of these theorems which have been proved recently.

Apart from its own mathematical content, the talk served to impress upon the students that there is a lot of mathematics outside the courses they study which is equally exciting. It is really ominous that the very first colloquium in the Institute ended up with this important message. Surely, as the Institute grows there will be many such colloquia spreading over many disciplines and catering to different audiences. But the memories of the first colloquium will not fade for a long time.

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 Professor of Mathematics

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New Staff at IIT Indore

1. Suman Mukhopadhyay joined as Assistant Professor in Chemistry.
2. Ms. Anjali Bandiwadkar has joined as the Deputy Librarian. Before joining IIT Indore, she worked as Librarian in IBS for 6 years. She has attended many National and International Conferences, and published many papers and articles.
3. Avinash Patil joined as Assistant Registrar. Earlier, he served IIT Bombay in various positions.
4. Atul K. Pandey has joined the institute as Project Engineer cum Estate Officer. Previously, he worked in institutions like Indian Institute of Science Education and Research (IISER) Pune, as Project Engineer and Indian Institute of Management Indore as Executive Engineer.

What is “small” about “smallpox”?

Nanda Khare, an alumnus of IIT Bombay, has recently published a book in Marathi, titled Kahani Manavachi (literally, the story of the humankind). It is a history of everything! While discussing the spread of various diseases in the history of human civilization, he comments that the English name “smallpox” is totally misleading, and asks: 'What is “small” about smallpox'?

It is indeed a legitimate question. The disease is perhaps the most devastating in human history. It afflicted children and adults alike, killing them or disfiguring them or blinding them. It is known to have brought down at least three empires. A large number of members of the royal families of Europe are known to have died of this disease: Queen Mary II of England (died 1694), Emperor Joseph I of Austria (died 1916), King Luis I of Spain (died 1724), Tsar Peter II of Russia (died 1730), Queen Ulrika Elenora of Sweden (died 1715), and King Louis XV of France (died 1774) -- all of them are supposed to have died of smallpox.

Why then is such a destructive disease called small-pox? To answer this question, we need to see the etymology of the word and its history, and we also need to look at not only its medical description but the sociological and psychological aspects of the use of the word.

The original word is “pock” or “pocke” (plural “pockes”, also spelt “pox”). The Old English word “poc” means “pustule”, i.e. a spot on the skin containing pus. The plural form in Middle English is “pokkes” is the source of the word “pox”. The word “pox” has been in use since the early 14th century, for referring to the disease characterized by pocks or pustules.

Around 1503, the word “pox” was used for “syphilis” which is a sexually transmitted disease. Though in terms of its effect, it is far less devastating than smallpox, syphilis was called the “great pox” to distinguish it from smallpox. This is perhaps medically and rationally misleading. However, from the sociological and psychological point of view, the sexual nature of syphilis brought in ethical considerations. Also, in its later stages, syphilis is reported to lead to insanity. Note also that this phenomenon is not confined to English. Many other European languages have expressions parallel to the English expression “small-pox”. For example, in French, it is petite vérole!

Later, in 1730s came the “chicken pox”. It had nothing to do with the “chicken”. Only, it was “smaller” or “milder” than “smallpox”!

In the languages of North India, the smallpox is referred to as “devi” (e.g. in Hindi and Marathi). It is perhaps the curse or the “prakopa” of the Goddess Sheetalaa. Though Sheetalaa Devi is worshipped as the pox-goddess and the goddess of disease, note that the name “sheetalaa” is derived from “sheeta” or “sheetala” (cool)!

*Milind Malshe
Professor of English*

Student's Column

SILARAHMI – Kindness for Humanity

“WITH GREAT POWER COMES GREAT RESPONSIBILITY” - Spiderman's Uncle

once upon a time a king was marching with his army. On the road a very old man was sitting. The junior most soldier in the front comes forward and orders the old man, “Hey, dirty people! Don't you have any other work than blocking our way?” The old man moves aside and comes again to the centre of the road. Now another soldier comes and orders the old man, “Hey, move aside, you old man, good for nothing. I do not understand why people like you don't just die.” The old man moves aside and again comes back to the centre of the road. Now the King's adviser comes and requests the old man to move aside as the King's is soon approaching. The old man asides and comes again to the centre of the road. Now the King comes. He sees that the old man is too weak to move aside, says to his soldiers, “This old man is weak. Take the chariot from the side of the road.” The old man says, “That's why you are the King.” The King gets surprised and asks the old man, “Why did you say so and who are you?” The old man replies, “The people of your kingdom think that I am mad, but it is not so. Earlier, I was very kind and humble while I was the King in the adjacent kingdom. I was brought to this condition once I turned cruel.”

The moral of the story is always be kind and humble and feel others' pain.

*Syed Sadaf Ali
Computer Science & Engineering*

THE IMAGINARY LINE

Mr. X and Mr. Y are neighbours. Well, almost. However, most Indians would consider Mr. X as his/her brother, while they would look down upon Mr. Y and see him as one of their potential enemies. What distinguishes Mr. X from Mr. Y? Just the fact that Mr. X stays on the same side of an imaginary line as the Indians do, while Mr. Y stays on the other side. This seems highly illogical. But that's the way it is.

What is this imaginary line? Who drew it? Why is it so powerful; that it makes people negate all rationale and defy all logic? No one has a satisfactory answer to these mind-boggling questions. Well, this line is supposed to have been drawn for purely administrative purposes. You have to pay to cross the line because the territories on either side belong to different jurisdictions. That's it. Purely administrative. However, we Indians have taken it upon ourselves to give undue importance to the aforesaid line, by dividing the territories on either side of it not only administratively, but also emotionally. Sometimes, this emotion, which we call patriotism, gets in the way of more important things. People blinded by patriotism are called heroes in their nation, and terrorists in others.

While it is perfectly fine to support the cricket team representing one's nation, what is not acceptable is dividing people on the basis of their nationalities rather than their capabilities. How many of us have wanted Slumdog Millionaire to win the Oscar not because it was a good movie (was it?), but because it featured Indian actors? Well, think about the imaginary line and its power.

The imaginary line.... What is it?

*Bhushan Shah
Computer Science & Engineering*

IMMORTALITY

Staring you in the eye, it approaches every quantum of time.
All the time you can see – notice, you are just an innocent bystander,
While it takes your loved ones to a one -ay voyage.
Why take this life for granted? - Any day He'll push the button.
Yes, the assassin is the victor – none stands it – history says!
Inevitable its crusade is, you just cogitate and moan,
You live carefree all along to find your destination.
The cessation of life and 'His' imminent approach – identical.
It's pride in itself is rationally understood when it hails.
“Quit, insignificant creature”, it speaks, “be my child”,
Cruel intentions hidden in the visage, a few did find.
Soul has no coporeal manifestation – I believe.
Now here I stand in my happy hours and I declare:
“Be not proud ugly death – for you shall wake me to eternity.”

*Tushar Rokhade
Mechanical Engineering*

REAL SUCCESS

With dream in our eyes,
With zeal in our hearts,
We live our lives
Driven by aims and thoughts.

Some accomplish them, some don't;
Aim high, work hard,
But don't count on destination
Because success is not an end.

Important is the path we select
Rightness of the path chosen
Surely guarantees you success
Which won't be an end but the real beginning.

*Anamika Patel
Electrical Engineering*

PhD Admissions 2010-2011

IIT Indore invites applications for the PhD programme for the Autumn semester July-December 2010 in the disciplines of Chemistry, Computer Science and Engineering, Economics, Electrical Engineering, Mathematics, Mechanical Engineering, Physics, and Philosophy.

Eligibility Criteria

Engineering and Science

Masters degree in the relevant branch of Engineering & Technology or Science with a minimum Cumulative Performance Index (CPI) of 6.5 or 60% marks or B.Tech. degree from any IIT with a minimum CPI of 7.0.

Economics and Philosophy

Masters degree in Arts, Humanities, Social Sciences or Commerce with a minimum of 55% marks or equivalent or Masters degree in Science/Engineering with a minimum CPI of 6.5 or 60% marks or B.Tech. from any IIT with a minimum CPI of 7.0.

Category of Admission

The intake of Ph.D. students is under the categories of: Teaching Assistantship/ Research Assistantship, Govt./Semi-Govt. Fellowship Awardees (QIP, CSIR, UGC, DAE, DBT, NBHM etc.) and Sponsored Candidates. Except for Sponsored Candidates, all other candidates should have qualified GATE/UGC-NET/CSIR.