

# **Abstract Book**

**Summary of Lectures  
Delivered at 75<sup>th</sup> Orientation Programme  
November 25 - December 14, 2019**

**UGC-Human Resource Development Centre  
Jadavpur University**

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## *Director's Note*

The UGC-Human Resource Development Centre, Jadavpur University, is organizing the 75<sup>th</sup> Orientation Programme, the first among the four such programmes sanctioned by the UGC in the session 2019-20.

Like the previous Orientation Programmes, we have organized a study tour at Satyajit Ray Film and Television Institute (SRFTI) Kolkata, for the participants of 75<sup>th</sup> Orientation Programme. In this study tour the participants would get first-hand experience in direction, sound, cinematography, editing and animation through a guided tour of different units of SRFTI, which they would thereafter document in terms of reports. My sincere thanks go to Debamitra Mitra, Director of SRFTI Kolkata and Ashok Viswanathan, Dean, SRFTI Kolkata, for arranging such an important study tour for the participants of the 75<sup>th</sup> Orientation Programme.

While selecting topics of the lecture sessions, three criteria have been kept in mind: topics of current affairs of national as well as international importance (such as Disaster management); topics of general interest for moral, psychological and professional development (such as lectures on stress management, research methodology, CAS/service matters, general financial rules); and topics of cross-discipline and multi-discipline in nature (such as lectures on, philosophy and history of science, Medical Literacy). On top of all these, there has been one session on performing arts with live demonstration.

This Abstract Book collates summary of most of these lectures delivered by experts and eminent researchers in the relevant fields both from within and outside West Bengal. The summary lectures are arranged thematically according to the above-mentioned perspectives. I hope that the participants of the 75<sup>th</sup> Orientation Programme would find this Abstract Book useful for ready references of what they have learnt through this programme.

On January 20, 2018, we have achieved a milestone by launching our own website ([www.hrdcju.in](http://www.hrdcju.in)) and from the session of 2018-19 the application procedure has become on line both of which have been the first of their kind among all the HRDCs in West Bengal. I sincerely thank the University administration for all the help that has been provided to us in this regard. The e-copies of this Abstract Book as well as the earlier ones can be downloaded from link to Archive in this website. Apart from providing all necessary information regarding different programmes organized by us along with time lines and application forms, the website contains a feedback link which can be used by the participants and other stakeholders for providing us their valued suggestions. Such suggestions would help us improve our performance and discharge our moral responsibilities more efficiently and effectively according to the needs of the stakeholders.

At the end, I wish all the participants a memorable and enjoyable four weeks of interactive learning.

November, 2019

**Rajat Acharyya**



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<b>Schedule for 75<sup>th</sup> Orientation Program (25<sup>th</sup> November – 14<sup>th</sup> December, 2019)</b>				
<b>Date</b>	<b>10:30 AM – 12:00 Noon</b>	<b>12:00 Noon – 1:30 PM</b>	<b>2:15 PM – 3:45 PM</b>	<b>3:45 PM – 5:15 PM</b>
Nov 25 <b>Monday</b>	<b>Inauguration Session:</b> 10:45 am: Welcome Address by <b>Prof. Rajat Acharyya</b> , <b>Director, UGC - HRDC, JU</b> , 11:00 am - 12:30 pm: Inaugural Address by <b>Ashok Viswanathan</b> Dean, SRFTI 12:30 pm - 12:45 pm: Tea Break 12:45 pm: Introduction to the OP Dr. Nandan Bhattacharya, Asstt. Director & Mr. Prabir Chatterjee, Section Officer, UGC-HRDC		<b>Muktipada Sinha</b> Department of Education, JU <b>Mental Health</b>	
Nov 26 <b>Tuesday</b>	<b>Saikat Sinha Roy</b> Department of Economics, JU <i>From 'Planning for Industrialisation' to 'Make in India':            The evolution and the critic</i>		<b>Rajkumari Basu</b> Counselor <b>Counseling</b>	
Nov 27 <b>Wednesday</b>	<b>Bichitra Kumar Guha</b> Dean, Faculty Affairs, IEST <i>Evolution of Scientific Ideas from Aristotle to Newton</i>		<b>Chittaranjan Sinha</b> Department of Chemistry <i>Initiation of Chemical Education and Research in India :            Inspiration from Acharya P. C. Ray</i>	
Nov 28 <b>Thursday</b>	<b>Achin Chakraborty</b> Director, IDSK Kolkata <i>Research Methods: Philosophical Foundation</i>		<b>Amlan Dasgupta</b> Department of English, JU <b>Digital Archiving</b>	<b>Lab &amp; Library Work</b>
Nov 29 <b>Friday</b>	<b>Indrani Choudhuri Dutt</b> Director, IQAC, Lady Brabourne College <i>Data Sourcing, Management &amp; Analysis: Institutional            Role &amp; Involvement Participation In IQAC</i>		<b>Lab &amp; Library Work</b>	
Nov 30 <b>Saturday</b>	<b>Gour Krishna Pattanayak</b> Finance Officer, JU <i>Basic Financial Rules and Service Related Rules            Applicable for the College and University Teachers</i>		<b>Lab &amp; Library Work</b>	

**Lunch Break: 1:30 PM – 2:15 PM**

Schedule for 75 <sup>th</sup> Orientation Program (25 <sup>th</sup> November – 14 <sup>th</sup> December, 2019)				
Date	10:30 AM – 12:00 Noon	12:00 Noon – 1:30 PM	2:15 PM – 3:45 PM	3:45 PM – 5:15 PM
Dec 02 Monday	<b>Rupkumar Barman</b> Department of History, JU <i>Migration in theoretical perspective</i> <i>Forced Migration, Environmental Refugees and State Policies:</i> <i>Indian Scenario in Global Context</i>		<b>Santanu Tripathi</b> Department of Clinical Pharmacology, Tropical Medicine <i>Medical Literacy</i>	
Dec 03 Tuesday	<b>Abhra Bose</b> Department of Bengali, Visva Bharati <i>Language Change: Progress or Decay</i>		<i>Lab &amp; Library Work</i> & <i>Submission of report on Survey based Group Project &amp;</i> <i>Discussion &amp; Evaluation</i>	
Dec 04 Wednesday	<b>Pradip K. Ghosh</b> Pro VC, JU <i>Some Aspects of Philosophy of</i> <i>Science</i>	<i>Lab &amp; Library Work</i>		<b>Manjusha Majumder</b> Department of Mathematics, CU <i>1. History of Development of Modern Differential Geometry</i> <i>2. Abstract No.</i>
Dec 05 Thursday	Survey based Group Project & Discussion & Evaluation & Evaluation of Group Project & Discussion		Survey based Group Project & Discussion & Evaluation & Evaluation of Group Project & Discussion	
Dec 06 Friday	Study Tour at SRFTI		Study Tour at SRFTI	
Dec 07 Saturday	<i>Lab &amp; Library Work</i> & <i>Submission of report on Study Tour</i>		<b>Ramaprasad Bhattacharya</b> Joint DPI, GoWB <i>CAS/Service matters</i>	

**Lunch Break: 1:30 PM – 2:15 PM**



<b>Schedule for 75<sup>th</sup> Orientation Program (25<sup>th</sup> November – 14<sup>th</sup> December, 2019)</b>				
<b>Date</b>	<b>10:30 AM – 12:00 Noon</b>	<b>12:00 Noon – 1:30 PM</b>	<b>2:15 PM – 3:45 PM</b>	<b>3:45 PM – 5:15 PM</b>
Dec 09 <b>Monday</b>	<b>Swapnendu Bandyopadhyay</b> Department of Economics, JU <i>Games that we play</i>		<i>Lab &amp; Library Work</i> & <i>Submission of report of Seminar Reports</i>	
Dec 10 <b>Tuesday</b>	<i>Lab &amp; Library Work</i>		<i>Seminar</i>	<i>Seminar</i>
Dec 11 <b>Wednesday</b>	<i>Seminar</i>	<i>Seminar</i>	<i>Seminar</i>	<i>Seminar</i>
Dec 12 <b>Thursday</b>	<i>Seminar</i>	<i>Lab &amp; Library Work</i>	Microteaching	
Dec 13 <b>Friday</b>	Microteaching	<b>MCQ</b>	<b>Performing Arts</b>	
Dec 14 <b>Saturday</b>	<b>Valedictory Session</b> 11 am – 12:30 pm: Valedictory Lecture by <b>Gopa Dutta</b> Former Vice Chancellor, Gour Banga University		Feedback and Interactive Session <b>(Certificate Distribution and Disbursement of Payment)</b>	

**Lunch Break: 1:30 PM – 2:15 PM**

**UGC–Human Resource Development Centre**  
**Jadavpur University**  
**75<sup>th</sup> Orientation Program**  
**(Nov. 25<sup>th</sup>, 2019 - Dec. 14<sup>th</sup>, 2019)**

**Survey based Group Project & Discussion & Evaluation**

1. Time slot of Group Discussion: **05.12.2019 at 10:30 AM - 1:30 PM & 2:15 PM - 5:15 PM**
2. Presentation shall be made for **30 Minutes** followed by interaction for **10 Minutes**.
3. Presentation shall be made according to the following order.
4. Write up (**12 TNR; Single spacing**) on the topic must be submitted on **04.12.2019 (5:15 PM)**

**Distribution of Group Discussion topic for participants**

<b>Group</b>	<b>Name</b>	<b>Subject</b>	<b>Topic</b>
A	Aditi Banerjee	Bengali	<i>Bengali literature outside Bengal</i>
	Tanmay Singha Mahapatra	Bengali	
	Anirban Saha	Bengali	
	Rehana Khatun	Bengali	
	Ashim Kumar Halder	Bengali	
	Biswajit Das	Bengali	
	Gargee Sarkar	Bengali	
B	Srimanta Das	English	<i>Group theatre vs. Jatra: Competitor or Ally</i>
	Debolina Guha Thakurta	English	
	Pinky Isha	English	
	Anik Samanta	English	
	Gouranga Charan Jana	English	
	Md Mizanur Rahaman Sardar	English	
C	Sajed Biswas	History	<i>Jallianwalabagh: After 100 years</i>
	Sk Jahangir Hossain	History	
	Malini Siddhanta	History	
	Sujit Das	History	
	Gracy Maria Subba	History	
D	Susnata Ghosh	Philosophy	<i>Vaktibad vs. Juktibad</i>
	Buddhadeb Gorai	Philosophy	
	Sayantani Bala	Philosophy	
	Liza Dutta	Philosophy	
	Maitreyee Mukherjee	Philosophy	
	Dibakar Manna	Philosophy	

E	Diki Bhutia	Pol. Science	<b><i>BREXIT and European Union</i></b>
	Satrajit Banerjee	Pol Science	
	Kasturi Sinha Ghosh	Social Work	
	Soumen Das	Sociology	
	Priyanka Roy	Sociology	
F	Gopikrishnan Reghu	Sanskrit	<b><i>Upanishadas: Religious text or quest of wisdom</i></b>
	Nagaraja Bhat	Sanskrit	
	Pritam Ghosal	Sanskrit	
	Tarak Majumder	Sanskrit	
	Goapl Chandra Sarkar	Education	
G	Sumanta Dutta	Commerce	<b><i>Judiciary and Democracy</i></b>
	Nibedita Mallick	Commerce	
	Mukkatira Palangappa Chengappa	Law	
	Saurabh Bhattacharjee	Law	
	Sujata Roy	Law	



**ABSTRACT  
OF LECTURES  
DELIVERED**





# **CAS/ Service matters/**





## **CAS/ Service Matters**

*Ramaprasad Bhattacharya*  
*Joint DPI, Govt. of West Bengal*

**Date & Time: 07<sup>th</sup> December, 2019; 2:15 PM - 5:15 PM**

- Enrolment of students in Higher Education in West Bengal is 17%.
- O.P./R.C. is just not a personal requirement. It should be a social responsibility for a teacher to prepare the students. These programmes are designed to serve this purpose.
- Gap between O.P. and R.C. is conventionally one year, but it is not strictly maintained in West Bengal scenario.
- Publication and other criteria are more important and necessary for API Score than Orientation Programme / Refresher Course.
- UGC-listed journals are recommended for publication, but non-listed journals are also taken into consideration.
- Financial support for Projects can mainly be obtained from four sources viz. DST Central, DST State, UGC, Government of West Bengal.
- Number of classes per week is flexible and it depends on number of teachers present at the department.
- Government Colleges are treated or recognized as cadre-based service, but Government-Aided colleges are different. Therefore, the rules and regulations of service continuation and promotion is different depending on the change of service-criteria, namely Govt. To Govt., Govt. To Non-Govt., Non-Govt. To Non-Govt. And Non-Govt. To Govt. Colleges.

## **Basic Financial Rules and Service Related Rules Applicable for the College and University Teachers**

**Gour Krishna Pattanayak**  
*Finance Officer, Jadavpur University*

**Date & Time: 30<sup>th</sup> November, 2019; 10:30 AM - 1:30 PM**

General Financial rules normally includes sanction process, budgeting, spending norms, purchase rules, service benefits, pay and promotion issues and taxation matters, to name a few. The present lecture primarily focuses on these aspects.

Budgeting is essentially estimates for the future period based on past experiences, and flow of funds and expectations thereof. The principle of budgeting is essentially setting some benchmarks for future plan of growth and development. For academic institutes, the main source of funds is funding by the State and Central Governments and other agencies. In addition, there are incomes/revenues generated through fees, testing and consultancy, sale of publications, alternative use of properties and assets, and disposal of junk and other materials.

Purchase and expenditure thereof are primarily intended for academic and research activities and primarily within budgetary allocations and/or sanctions. The purchase of materials, equipment and furniture are now governed by GO No.: 5400-F(Y) dated 25.6.2012 of Government of West Bengal.

Accounting, reporting and auditing are the other crucial elements of general financial rules. In this context, introduction of GST has added another dimension to accounting of purchases. The present lecture shall briefly touch upon the scope, applicability, rationality and impact of GST.

The lecture also elaborate upon Service Rules, particularly pay fixation and promotion, promotion under CAS, retirement benefits and the new Pension Scheme introduced by the GoI with effect from 01.01.2004. Salient features of this pension scheme are as follows:

- This is a contributory Pension scheme, introduced w.e.f. 2004; 10% of Basic Pay as subscription and matching equal contribution by the employer will be provided monthly.
- A Pension fund will be maintained by a Fund Manager, where monthly the subscription and contribution need to be send by a employer.
- The employer shall have no liability for Pension of the employees under the scheme.

- The Fund manager shall release Pension monthly, based on the income on the accumulated funds with them.
- Such Pension would not have any DA or Pay-revision benefits.
- The employer has no financial liability for pension after the retirement.
- The fund manager receiving the funds will pay monthly pensions.
- There is a permanent Retirement Account number [PRAN], which is transferable.
- The scheme is controlled by PFRDA.

## **Data Sourcing, Management & Analysis: Institutional Role & Involvement Participation In IQAC**

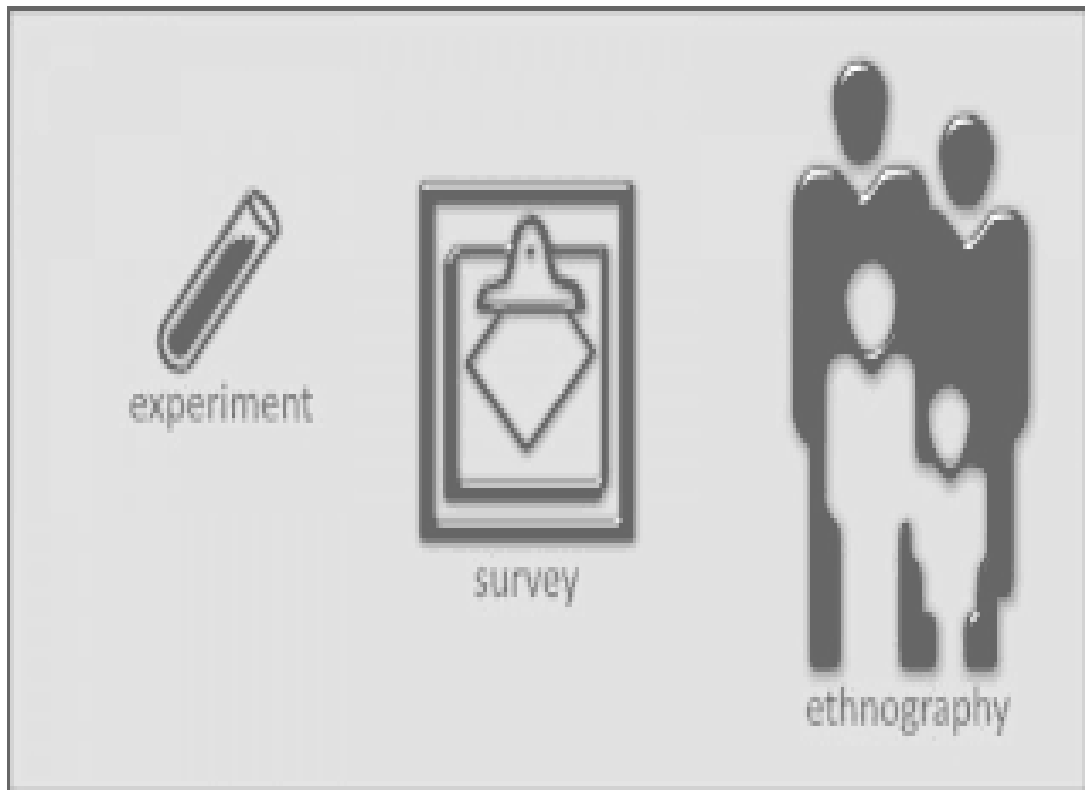
**Indrani Choudhuri Dutt**

*Coordinator, IQAC, Lady Brabourne College, Kolkata*

**Date & Time: 29<sup>th</sup> November, 2019; 10:30 AM - 1:30 PM**

- The lecture aims to emphasize that IQAC of an institution is essentially an interactive and participative body.
- The Core Committee should present itself as a body of team makers and team leaders. The rest of the Faculty should see themselves as key players in a team.
- A functioning IQAC must be open, interactive, communicative.
- It must instil among each Faculty member a sense being part of an integrated structure with graded levels of activity – increasing magnitude of intensity to facilitate resolutions which are holistic and beneficial for the institution.
- It must sensitize all Faculty members about
  - a) Primary data
  - b) Secondary data
  - c) Relative nature of the two kinds of data
  - d) Modalities of Analysis
  - e) Necessity for Analysis
  - f) Preparing Reports on the basis of analysis
  - g) Role of Analysis towards achievement of institutional goals.
- Beehive Role of IQAC Office: Storage hub of data, dynamism in collection and analytical process, sustaining correspondence between primary and secondary data.

- In the final part the lecture attempt is made to relate the knowledge disseminated about data collection & analysis by the IQAC to the latest templates of the SSR Manual introduced by NAAC in July 2017.
- The talk tries to impress upon the participants that given the comprehensive, quantifying and digital approach of the templates participation and involvement of the entire Faculty as extended IQAC is essential.



# Methodology



## **Games that we play**

**Swapnendu Banerjee**

*Department of Economics, Jadavpur University, Kolkata*

**Date & Time: 09<sup>th</sup> December, 2019; 10:30 AM – 1:30 PM**

In the late thirties, mathematician John von Neumann turned his prodigious innovative talents towards economics. This brief encounter of his with the day's economic theory convinced him that it was in need of a new mathematical tool. In the years that followed, he along with Oskar Morgenstern went about creating a brand new mathematical tool which was offered to the profession in their now classic book 'Theory of Games and Economic Behavior' published in 1944. In this book, they developed the concept of 'two-person-zero-sum' games and other cooperative game theoretic concepts. But soon economists found out that the phenomenon of 'one person's gain is the other person's loss' was too restrictive in many applications. Later John Nash took the next giant step and gave a solution concept for broader class of games which need not be zero-sum. Thus 'Nash Equilibrium' revolutionized what we now know as the 'modern non-cooperative game theory' and laid the foundation for further development in the field.

Game theory (non-cooperative) is sometimes known as interactive decision theory. It deals with situations where people with different (mostly competing) goals try to take into account others' actions in deciding on the optimal course of action. Game Theory has wide applications in Economics, Computer Science, Biology, Political Science, Sociology and other social sciences. In the first part of the lecture we will talk about static games of complete information and dynamic games of complete information. Static games are simultaneous move games and Dynamic games are sequential move games. We will look into relevant solution concepts of the above mentioned games (viz. Nash Equilibrium and others). In the second part of the lecture we will play some games in the class. This will enable the particip

## **Methodological appraisal of social research: Going beyond tools and techniques**

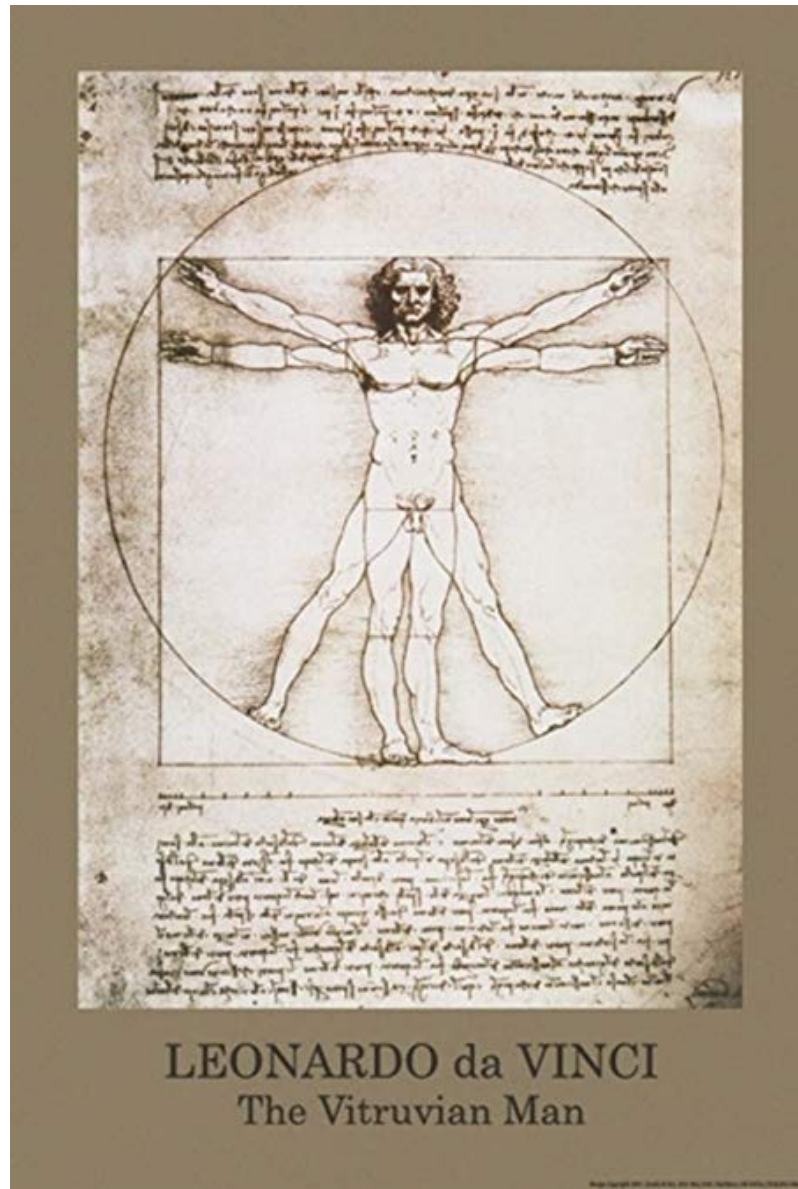
**Achin Chakraborty**

*Professor of Economics and Director Institute of Development Studies Kolkata*

**Date & Time: 28<sup>th</sup> November, 2019; 10:30 AM – 1:30 PM**

The courses in research methodology seem to have been driven by the widely-held notion that carefully drawn methodological principles would tell us how to do research *scientifically*. The logical sequence thus turns out to be from a set of prescriptive principles to the practice that is supposed to follow those principles. In this lecture, we take the opposite route. We argue that there is enough evidence to show that actual practice of research in social sciences is too rich in diversity and innovativeness to be disciplined by a few prescriptive norms. We begin with the invocation of the diversity of practices and a rough classification of different types of research inquiries, each of which is ostensibly driven by a specific motivation. Research inquiries are not always explanatory, or, as economists tend to suggest, predictive. Apart from explanation and prediction there are several other motivations that drive social research. A major area, for example, deals with the normative issues involved in assessing states of affairs or changes therein. We discuss how an explanatory kind of research question is dealt with within the positivist-empiricist framework. In particular, the respective roles of theory (or explanatory framework), data and method are discussed. We then discuss the distinction between explanatory and hermeneutic approaches, spend some time on normative-evaluative kind of research, and end with a brief discussion of the post-positivist approaches in social research.





# History and Philosophy of Science



## **Philosophical View of Science: A Brief Understanding**

**Pradip Kumar Ghosh**

*Pro-Vice-Chancellor, Jadavpur University*

**Date & Time: 04<sup>th</sup> December, 2019; 10:30 AM – 12:00 Noon**

In general idea we know that Physics, Chemistry and Biology constitute science with Mathematics. In literature science viewed as: “Systematized knowledge covering general truths or the operation of general laws, esp. as obtained and tested through scientific method.” One of the key problems in Philosophy of science is to understand how techniques such as experimentation, observation and theory construction have enabled scientists to unravel so many of nature’s secret. The study of the most general and abstract features of the world and the categories with which we think. In philosophy the concepts with which we approach the world themselves become the topic of enquiry.

Though History of science usually not embedded in the curriculum and while science is taught rather in a historical way, it is argued that close attention to the history of science is indispensable for doing good philosophy of science.

It may be recalled that rapid scientific development occurred in Europe between the years 1500 and 1750. There were scientific investigations in ancient and medieval times- The dominant world was Aristotelianism. According to him all earthly bodies composed of just four elements: earth, fire, air & water.

Ptolemy’s earth centric model of universe was uprooted by Copernican model of Sun centric universe. In fact the whole system of mechanics, explanation of fall of apple and planetary motion was finally solved through Newton’s law of gravity. In leading to the conclusion we saw how the collection of data based on of observation by Tycho Brahe and predicting the formula of planetary motion by Kepler helped the discovery of most natural force exist in Universe- “The force of Gravity”.

The scientific views established on Newton’s deterministic science upto late part of nineteenth century saw development science through number of discoveries and theoretical explanation. Concept of Atom by Dalton advanced many ways the physical science which we generally termed as Physics and Chemistry while “Theory of Evolution” by Darwin gives a better understanding of living being.

The entire scenario of science changed dramatically after discovery of Electron by Sir J.J. Thomson and quick theoretical advance in developing atomic structure and introduction of Quantum Mechanics on one hand and introduction of theory of relativity by Albert Einstein on another hand. Their emergence caused considerable conceptual upheaval not only in physics but in other branches of science. Finally yet incomplete revolution in biology took place in 1953 by Watson & Crick through the discovery of the structure of DNA. It leads to development of molecular biology, Understanding of Heredity & process of building organisms.

Scientific theories established through imagination, observation & experimentation. Both observation & experimentation on a system cannot be done infinite times. Then, how we can say that it still become effective in next experiment or observation. Here lies the question why?

Twentieth century Philosopher Karl Popper's Theory of Falsification, Lakatos' observation and Hempel's covering model are discussed to know how science and philosophy are embedded. How deductive inference and inductive inference plays role in understanding the philosophical aspect of science and its theory is looked through Hume:

- Use of induction cannot be rationally justified.
- Whenever we make inductive inferences the presupposition is "Uniformity of nature".

Causality, conflict between Realist and Anti Realist are also discussed.

Finally we discuss how Thomas Khun arrived at paradigm concept. According to him a paradigm, therefore, determines not only a set of beliefs about the world. It also defines what counts as good science, and even determines what counts as a scientific fact. It is a conceptual framework that determines how the world looks to those who have accepted it. It defines not only the scientific outlook for practitioners of a particular science, but also the scientific "form of life."

In the conclusion it may be referred that in this lecture we have discussed about Induction, Explanation, Realism and Scientific change which are within the purview of General Philosophy of Science. There are scopes of issue based philosophical questions specific particular sciences. Conflict in physical science, Biological Science and human mind are dealt with examples.

Finally a short review of criticism on overdose of "Scientism" and idealistic difference between Science and Religion is made.

## Initiation of Chemical Education and Research in India: Inspiration from Acharya P. C. Ray

Chittaranjan Sinha

Department of Chemistry, Jadavpur University

Date & Time: 27<sup>th</sup> November, 2019; 2:15 PM – 5:15 PM

Chemistry is a most versatile subject and serves all branches of science, commerce, health-medicine, industry and environment. In India formal chemical education in higher degrees has started since 1872. Prof. Alexander Peddler was the first Professor in Chemistry to educate Indian students. A revolutionary acceleration in Chemistry teaching and research started with the joining of Prafulla Chandra Ray in Presidency College (Presidency University) as faculty member on 1889. In his Presidency period (1889-1916) he started laboratory teaching in chemistry, published *A History of Hindu Chemistry from the Earliest Times to the Middle of Sixteenth Century* (Vol. 1, 1902; Vol. 2, 1908), established Bengal Chemical and Pharmaceutical Works Ltd (BCPW) and India's first pharmaceutical company in 1901. His early research from Presidency College published in the Journal of Asiatic Society of Bengal and made him famous for the publication of 'Mercurous Nitrite,  $\text{Hg}_2(\text{NO}_2)_2$ , in 1896. From the laboratories of Presidency College he published more than eighty research papers in major journals like Proceedings of the Royal Society and Journal of Chemical Society, London. In 1916 P. C. Ray retired from Presidency College and joined as Palit Professor in the University College of Science, Calcutta University where he worked for more than 20 years and published about another 80 research papers in Nature, the Journal of Indian Chemical Society etc.

Under his leadership in 1924 the Indian Chemical Society (ICS), one of the pride nationalistic establishments of India, the fourth oldest Society of the country (Asiatic Society, 1784; Indian Association for the Cultivation of Science, 1876; Indian Science Congress, 1914) started in India. Acharya Prafulla Chandra Ray, the doyen of chemical sciences in India, as the Founder President with support of illustrious chemists like Professor J. C. Ghosh, Professor J. N. Mukherjee and Professor SwantiSwarupBhatnagar on May 09, 1924. Acharya Prafulla Chandra Ray is aptly regarded as the pioneer in initiating teaching and research in chemistry in our country as well as in the establishment of chemical and pharmaceutical industries. He is awarded '**Father of Indian Chemistry**'. In 2011, the International Year of Chemistry, the Royal Society of Chemistry, UK honored his life and work by establishing an *International Chemical Landmark Plaque*, first time outside Europe, in Presidency College where Prafulla Chandra had started chemistry teaching and research. The Plaque reads "To commemorate the life and achievements of Acharya P. C. Ray, father of Indian Chemistry, philanthropist and entrepreneur who founded modern chemistry teaching and research in India."

## **History of Development of Modern Differential Geometry**

**Manjusha Majumdar (Tarafdar)**

*Department of Pure Mathematics, University of Calcutta, Kolkata*

**Date & Time: 04<sup>th</sup> December, 2019; 2:15 PM - 5:15 PM**

The History of Geometry may be roughly divided into four periods. Euclid wrote a book, named ELEMENTS about 300 B.C. There was a lack of perfection in the definition of “point” and “line”. Mathematicians were not willing to accept V as an axiom, as stated by Euclid. For 2000 years, they tried to prove it. Their failure, led to the invention of NON-EUCLIDEAN GEOMETRY. In the early part of 17th Century, a new approach of geometry was developed by the famous French mathematician Rene Descartes. It is due to him that such type of geometry is called CARTESIAN GEOMETRY. DIFFERENTIAL GEOMETRY is (loosely speaking) the study of Geometry with the help of Calculus. Modern Differential Geometry requires the knowledge of TOPOLOGY. The concept of a manifold generalises the concept of a curve or a surface in  $\mathbb{R}^3$ .

## **Evolution of Scientific Ideas from Aristotle to Newton**

**Bichitra Kumar Guha**

*Indian Institute of Engineering Science and Technology, Shibpur, Howrah*

**Date & Time: 27<sup>th</sup> December, 2019; 10:30 AM – 1:30 PM**

Search for truth about the Universe surrounding us started from ancient times. A number of philosophers in ancient Greece contributed in development of ideas about the earth and the heavens; notable among them was Aristotle who proposed different laws to work for the earth and the heavens and tried to establish logically the workings of terrestrial and celestial mechanics. His ideas may also be compared with those of ancient Indian philosophers. Later on, as the Catholic Church gained power, Aristotle’s ideas were declared to be infallible and any contradiction was supposed to be anti Bible. From the time of the Renaissance, systematic scientific ideas started developing through Copernicus, Bruno and Galileo. After a long drawn struggle, finally through Newton, the modern science took shape. The ideas of these great thinkers have been discussed in details following chronologically the development of scientific ideas.

# History





## **Dragon against the Peacock: A Strategic Analysis**

**Kaushik Roy,**

Guru Nanak Chair Professor, Department of History, Jadavpur University

**Date & Time: 04<sup>th</sup> December, 2019; 12:00 Noon - 1:30 PM**

The People's Republic of China from its inception till this date has not accepted the McMahon Line (India-China border). Beijing slowly but continuously is chipping away at the territories along the Indian side of the border. In fact, the hardliners in China claim that Arunachal Pradesh, Bhutan, Sikkim, parts of Uttarkhand and Himachal Pradesh are all parts of China. After 1962, India has always backed down before a military confrontation with China. This is because of the gross disparity of military strength between China and India. And with the passage of time, this disparity is widening.



# Literature



## **Language Change: Progress or Decay?**

*Abhra Bose*

*Department of Bengali, Visva-Bharati, Santiniketan*

**Date & Time: 03<sup>rd</sup> December, 2019; 10:30 AM - 1:30pm**

Language is not static. It changes. It changes over time, it changes with geographical space. However the process of language change is very subtle, gradual and lengthy; it is often not recognizable in casual observation over a short period of time. Every generation realizes that it has a diction of its own, and while when it deviate from the earlier generation, it is very enthusiastic about the language change, but is almost always critical of the language that follows. Therefore at any given period of time, language is hailed as progress by some, while denounced as decay by others. The name of the topic of the present lecture is taken from the name of a book by John Atkinson, which deals with the changing patterns of the English Language.

In our lecture we would like to focus on the patterns of changing languages with special emphasis on the new words that a language acquires from several source. The new words of every language are often a source of embarrassment for the conservatives. The very fast changes that the languages all over the world in the present period are going through will be a point of discussion. We shall try demonstrate our argument with discussion with special reference to the Bengali Language. The topic of “Bad Language” and slang will also be dealt with in the process.



# **Current Affair**





## **From ‘Planning for Industrialisation’ to ‘Energizing the Process of Governance’: The evolution**

*Saikat Sinha Roy*

*Department of Economics, Jadavpur University*

**Date & Time: 26<sup>th</sup> November, 2019; 10:30 AM - 1:30 PM**

The Planning Commission has been recently rechristened as NITI Aayog. While the character of the institution has undergone a change, the functions of the institution have evolved from planning for industrialisation to energizing the process of governance. This is especially important in the context of wide ranging economic reforms and an emerging economy in transition. The lecture will trace the evolution both for the institution as well as the process identifying the specific areas of change in policy approach and development outcomes.

## **Migration in theoretical perspective**

**Rup Kumar Barman**

*Department of, History Jadavpur University*

**Date & Time: 02<sup>nd</sup> December, 2019; 10:30 AM - 12:00 Noon**

Migration of people from their place of their origin to alien lands, from village to town, from one region to another region, and from one country to another country, for socioeconomic, political and cultural reasons, is a common trend in human society throughout the ages across the world. There are two basic groups among the migrants. While the people of the first group migrate voluntarily from the place of their origin without being motivated by any external or internal force, the people of the latter group are forced to migrate from the land of their habitual residence because of ‘force(es)’ as generated from multiple sources including social, political, cultural and communal conflicts as well as for natural factors. Thus, the people of the second group are ‘forced migrants’. Apart from the traditional forces of migration, we do notice the generation of an internal force by environmental disasters and ‘environmental degradation’ leading to the creation of crisis in the livelihood of an individual, a family, a community or a village/settlement. This trend of forced migration (because of crisis in livelihood) has been defined as ‘crisis-induced-migration’ in the recent years. It appears that the environmental disasters create ‘disaster - induced displacement’ or ‘environmental refugees’, the environmental

degradation generates the crisis-induced displacement what is a slow process. Thus in this talk I'll highlight all the aspects of migration in theoretical perspective.

## **Forced Migration, Environmental Refugees and State Policies: Indian Scenario in Global Context**

**Rup Kumar Barman**

*Department of, History Jadavpur University*

**Date & Time: 02<sup>nd</sup> December, 2019; 12:00 Noon – 1:30 PM**

Among different categories of 'forced migrants', condition of the 'environment-induced displaced persons' or 'environmental refugees' is perhaps most vulnerable. In most cases, they don't cross the international border for which they can't be identified as 'refugees' or as 'asylum seekers' at per international covenants, conventions and international laws. So the people, those who don't cross international border, after being forced to evacuate their place of origin for environmental reason; are beyond the scope of international guidelines for recognition and protection as 'refugees.' The United Nations Organization (UNO) prefers to recognize them as 'internally displaced persons' (IDPs) along with the 'conflict-induced' and 'development-induced' displaced persons. Although the International Governmental Organizations(IGOs) and Non-Governmental Organizations(NGOs) have accepted them as 'environmental or ecological refugees' and agreed to treat them at per the 'conflict-induced forced migrants' or 'refugees', but practical scenario is quite different in the domestic affairs of many countries. In this respect, India is no exception. Although India has a long experience of handling the crisis of the 'conflict-induced refugees' since the independence (1947) but the 'environment-induced forced migrants' have not come under the jurisdiction of the state policy in the twentieth century. It is only with the beginning of the twenty-first century , after facing certain catastrophic natural disasters, the Government of India has adopted certain serious steps for disaster management and protection of the 'disaster-induced displaced persons'. These legal arrangements are mostly administrative and precautionary in nature where the rights of the IDPs are secondary. However, the National Human Rights Commission (NHRC) of India has emphasized (in 2008) on the adoption on the right-based 'relief and rehabilitation national policy' for the displaced persons including the 'displacement on account of natural and manmade disaster.' In this talk I'll highlight all these aspects of forced migration and environmental IDPs, international guidelines for the IDPs and state policy in India for management of environmental disasters.



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# Medical Science



## **Trust in Health Care – Assuming Greater Relevance than Ever**

**Santanu Tripathi**

*Department of Clinical Pharmacology, Tropical Medicine*

**Date & Time: 02<sup>nd</sup> December, 2019; 2:15 PM - 5:15 PM**

Everyone cherishes to remain healthy and live longer. But this apparently simple agenda warrants application of special insights and competencies, and is therefore, impossible to be accomplished, all by one-self. Through the human civilization, health care has evolved as a social institution wherein the needs of the care-seeking people are addressed by those who possess such special insights and competencies – the physicians. And these attributes are not enough; physicians are also expected to possess virtues of humility, honesty, compassion and transparency. Health care is essentially an endeavor founded in a mutual understanding of interpersonal trust. While trust is difficult to define, it remains the single most important variable that impacts all steps and perspectives of health care – beginning with care-seeking, to the ultimate outcome of care intervention. With the care-seeking patients at the centre-stage of health care, their inherent vulnerability makes it imperative that physicians and providers demonstrate compassion of high order and win their confidence.

Health care is inherently relational and trust is a relational notion. While the ubiquity of trust in health care is well recognised, for the care-seeker, trust in the provider as well as the care providing system and institution, is a general prerequisite rather than an option.

In this commentary, we shall attempt to define trust in health care, to understand its all-pervading characteristic in health care operations, and to examine how it posits today in the public vis-à-vis in private health care systems, with particular reference to the phenomenon of trust deficit and implications thereof. Finally, we shall explore the ways how to revive and restore trust in health care at interpersonal, organizational and institutional levels.





### **The UGC-HRDC Team**

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