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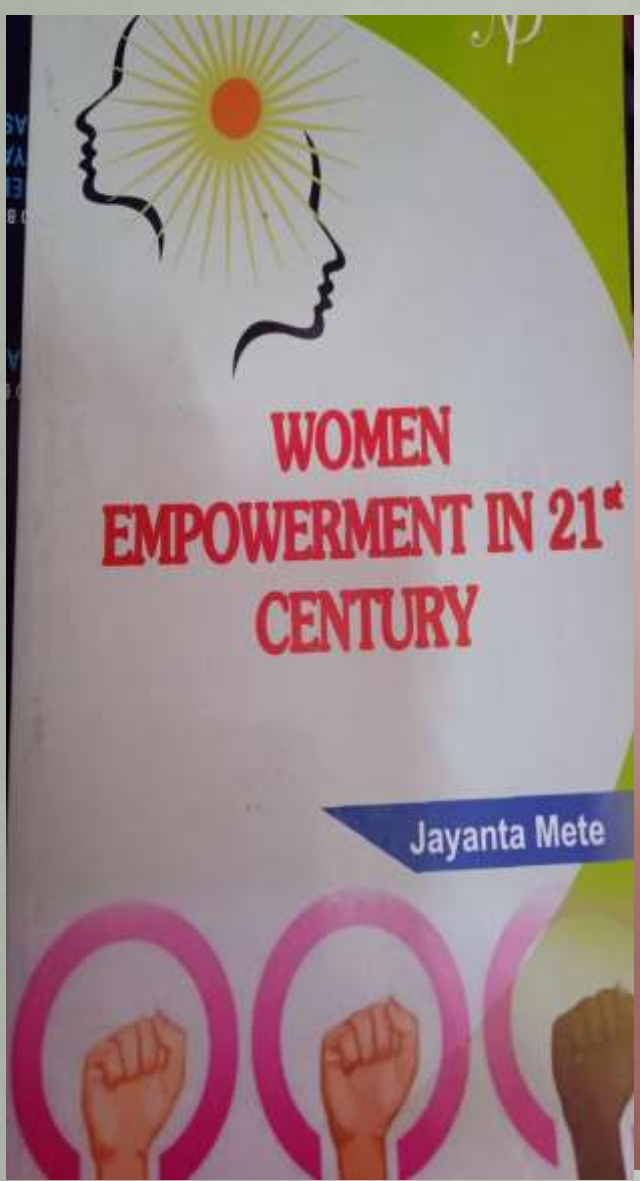
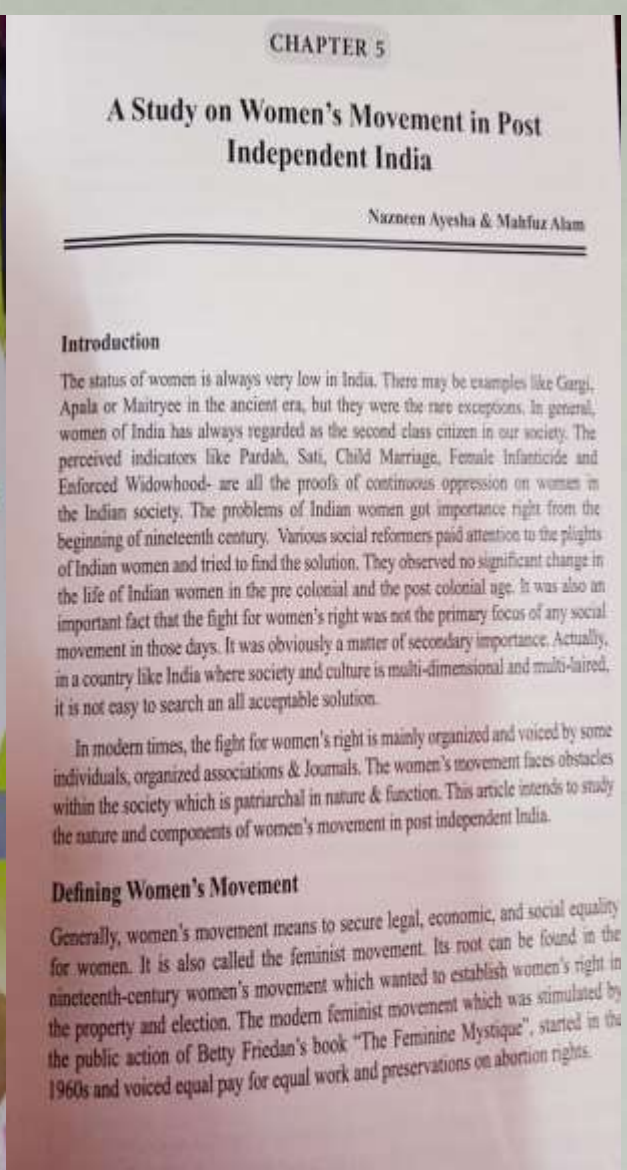
Year: 2018

Name of the teacher: Dr. Mahfuz Alaml
Title of book/chapter/paper: A Study on Women's Movement in Post Independent India





CHAPTER 5

A Study on Women's Movement in Post Independent India

Nazneen Ayesha & Mahfuz Alam

Introduction

The status of women is always very low in India. There may be examples like Gargi, Apala or Maitryee in the ancient era, but they were the rare exceptions. In general, women of India has always regarded as the second class citizen in our society. The perceived indicators like Pardah, Sati, Child Marriage, Female Infanticide and Enforced Widowhood- are all the proofs of continuous oppression on women in the Indian society. The problems of Indian women got importance right from the beginning of nineteenth century. Various social reformers paid attention to the plights of Indian women and tried to find the solution. They observed no significant change in the life of Indian women in the pre colonial and the post colonial age. It was also an important fact that the fight for women's right was not the primary focus of any social movement in those days. It was obviously a matter of secondary importance. Actually, in a country like India where society and culture is multi-dimensional and multi-laired, it is not easy to search an all acceptable solution.

In modern times, the fight for women's right is mainly organized and voiced by some individuals, organized associations & Journals. The women's movement faces obstacles within the society which is patriarchal in nature & function. This article intends to study the nature and components of women's movement in post independent India.

Defining Women's Movement

Generally, women's movement means to secure legal, economic, and social equality for women. It is also called the feminist movement. Its root can be found in the nineteenth-century women's movement which wanted to establish women's right in the property and election. The modern feminist movement which was stimulated by the public action of Betty Friedan's book "The Feminine Mystique", started in the 1960s and voiced equal pay for equal work and preservations on abortion rights.

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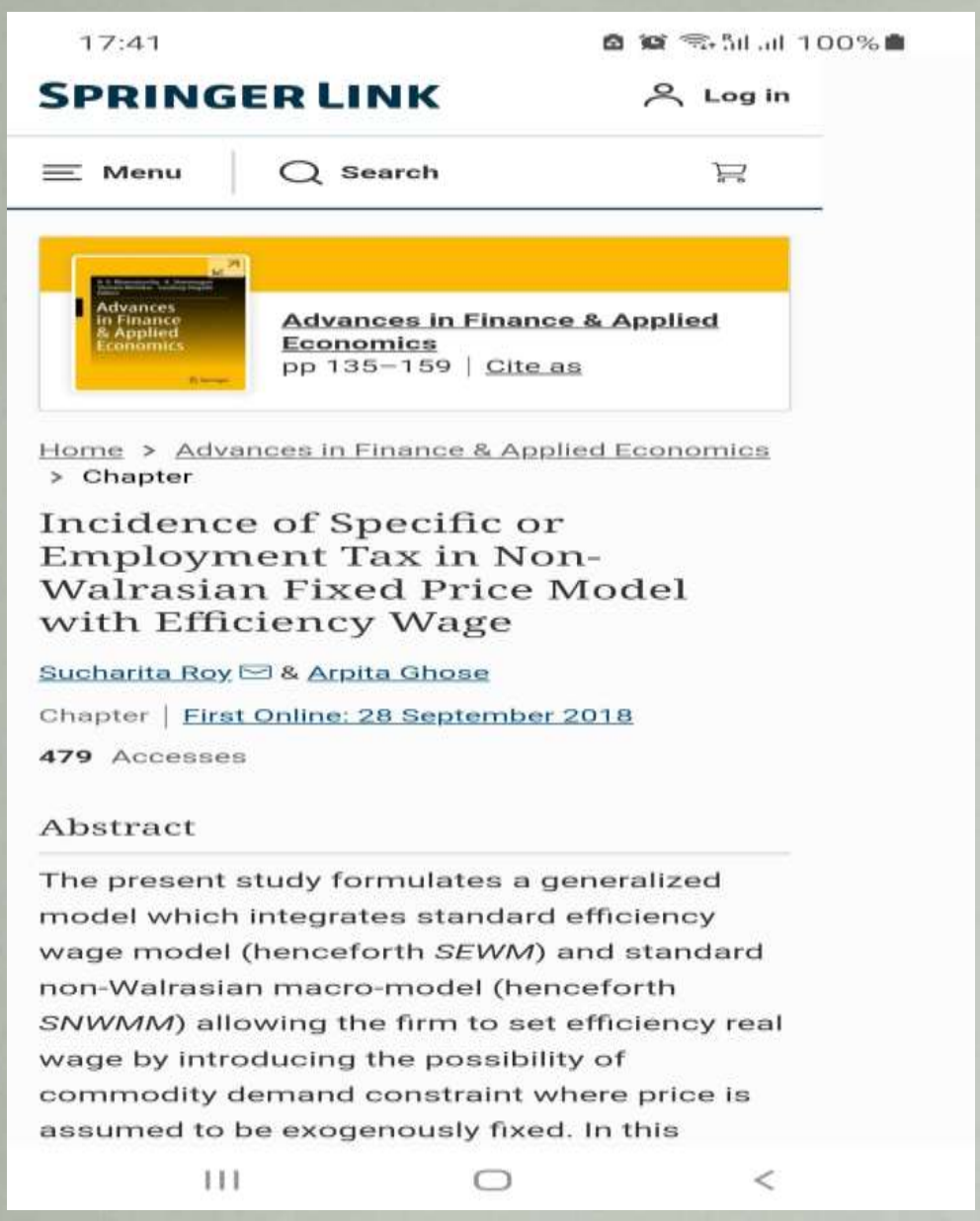
Year: 2018

Name of the teacher: Dr. Sucharita Roy

Title of book/chapter/paper: Incidence of Specific or Employment tax in Non Walrasian Model with Efficiency Wage



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Incidence of Specific or Employment Tax in Non-Walrasian Fixed Price Model with Efficiency Wage

Sucharita Roy & Arpita Ghose

Chapter | First Online: 28 September 2018

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Abstract

The present study formulates a generalized model which integrates standard efficiency wage model (henceforth *SEWM*) and standard non-Walrasian macro-model (henceforth *SNWMM*) allowing the firm to set efficiency real wage by introducing the possibility of commodity demand constraint where price is assumed to be exogenously fixed. In this

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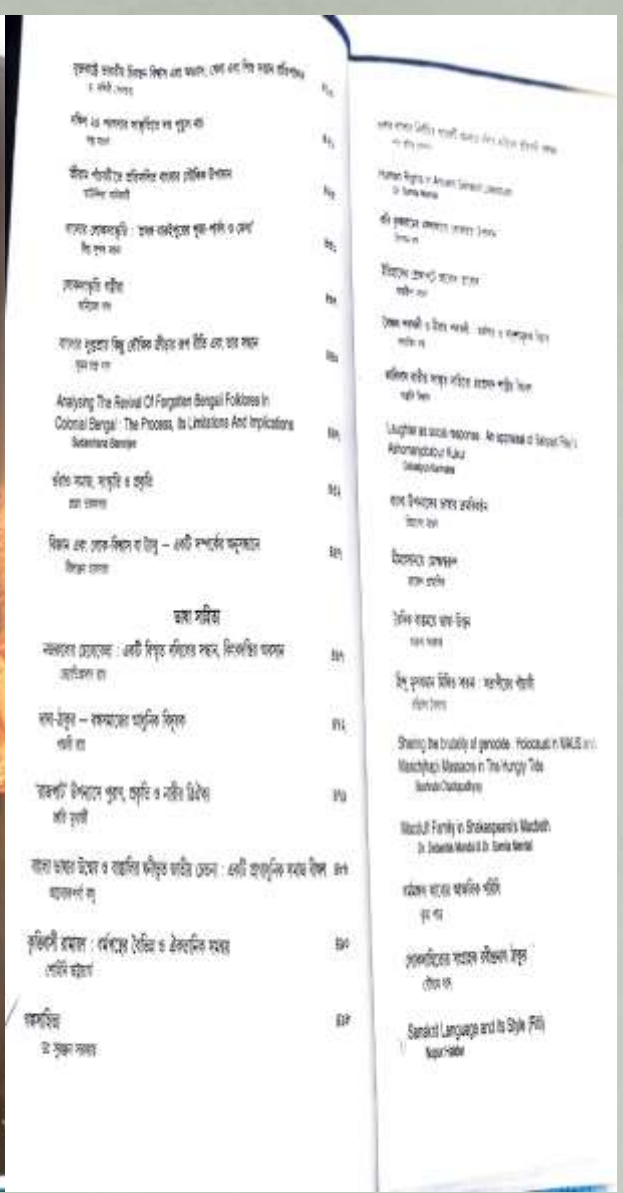

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Name of the teacher: Dr. Ranajit Mandal

Title of book/chapter/paper: Cosmological Lorentzian wormholes via Noether symmetry approach.

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Cosmological lorentzian wormholes via noether symmetry approach

Abstract

Noether symmetry has been invoked to explore the forms of a couple of coupling parameters and the potential appearing in a general scalar-tensor theory of gravity in the background of Robertson-Walker space-time. Exact solutions of Einstein's field equations in the familiar Brans-Dicke, Induced gravity and a General non-minimally coupled scalar-tensor theories of gravity have been found using the conserved current and the energy equation, after being expressed in terms of a set of new variables. Noticeably, the form of the scale factors remains unaltered in all the three cases and represents cosmological Lorentzian wormholes, analogous to the Euclidean ones. While classical Euclidean wormholes requires an imaginary scalar field, the Lorentzian wormhole do not, and the solutions satisfy the weak energy.

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Introduction

Apart from Black holes, Wormholes are yet another extraordinary, exciting and intriguing consequence of Einstein's General Theory of Relativity (GTR) being expressed mathematically as, $G_{\mu\nu} = R_{\mu\nu} - 12 g_{\mu\nu} R = \kappa T_{\mu\nu}$. Since the pioneering works of Lavrelashvili et al.[1-3] followed by Giddings et al.[4] and thereafter by Morris[5] and Thorne[6] wormholes turn out to be one of the most popular and intensively studied topics in Astronomy. Wormholes are essentially astrophysical objects which connect two asymptotically flat or de-Sitter/ anti-de-Sitter regions by a throat of finite radius. While, microscopic wormholes might provide us with the mechanism that possibly be able to solve the cosmological constant problem, macroscopic wormholes on the other hand, might be responsible for the final stage of evaporation and complete disappearance of black holes. The striking feature of wormholes is the requirement of the violation of energy conditions, and so classical Euclidean wormholes require exotic matter. However, since the Wheeler-DeWitt; equation is independent of the lapse function and as does not recognize either the Euclidean or the Lorentzian geometry, so following Hawking and Page formulation quantum and semiclassical Euclidean wormholes may be realized in the early universe, which consequently leads to classical wormholes following back-reaction phenomena.[7,8]

However, such wormholes exist only for some specified forms of the scalar potentials.[8] That is why, most of the efforts have been directed to the study of Lorentzian wormholes in the framework of classical GTR. Nevertheless, the problem associated with the violation of energy condition persists for Lorentzian wormholes as well. Therefore, realization of Lorentzian wormhole solutions with standard barotropic fluid is not acceptable physically. This implies that the matter supporting the traversable wormholes (wormholes without a horizon) should be exotic[9-11] and therefore it should have very strong negative pressure, or even that the energy density may be negative. Therefore, a lot of efforts have been directed to the study Lorentzian wormholes, in the framework of classical general relativity, sustained by an exotic matter with negative energy density. In general, these models include both the static[12-22] and the evolving relativistic versions[23-33] in view of a single fluid component. The interest has been mainly devoted to the study of traversable wormholes, without any horizon, allowing two-way passage through them.[34] For static wormholes the fluid requires the violation of the null energy condition (NEC), while in Einstein gravity there exists non-static Lorentzian wormholes which do not require weak energy condition (WEC) violating matter to sustain them. Such wormholes may exist for arbitrarily small or large intervals of time,[35,24] or even satisfy the dominant energy condition (DEC) in the whole spacetime.[35,36]

Scalar fields may be treated as the most common candidates for wormholes, with such exotic behaviour. At this point it is important to understand that GTR can accommodate all sorts of matter fields through the energy-momentum tensor $T_{\mu\nu}$. In this sense, scalar-tensor theory of gravity in principle should not be treated as a modification of GTR. Nevertheless, in view of the action principle, non-minimally coupled scalar-tensor theory of gravity may be looked upon as a modification of GTR, since it requires coupling between the Ricci scalar R and some arbitrary function $f(\phi)$ of the scalar field ϕ in the form $f(\phi)R$, in the action. But in view of the field equations, it might just again be treated as incorporating a typically different energy-momentum tensor altogether. Only by modifying Einstein-Hilbert action by introducing different higher-order curvature invariant terms, left hand side of the Einstein's equation and hence GTR is truly modified. In this sense wormhole solutions for scalar-tensor theory of gravity may also be treated as a consequence of GTR. In the context of cosmology, the violation of energy condition for such matter fields in the early universe, does not in any way affect the late stage of cosmic acceleration.

Evolving Lorentzian wormholes in the background of Robertson-Walker metric have already been studied by several authors.[36-39] In general, while constructing wormhole geometries, first the form of the redshift function $\Phi(r)$ and the shape function $b(r)$ satisfying some general constraints,[5,6] are fixed. This fixes the metric as well. Thereafter in view of the field equations, components of the energy-momentum tensor require to support the space-time geometry, are explored. For evolving wormholes, one usually generalizes the ansatz for static Lorentzian wormhole given by Morris[5] and Thorne[6] in the form,

$$dz^2 = -e^{2\Phi(r,t)}dt^2 + a(t)^2\left[\frac{dr^2}{1-b(r,t)r} + r^2(d\theta^2 + \sin^2\theta\, d\phi^2)\right]. \quad (1)$$

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Title of book/chapter/paper: Early universe with modified scalar-tensor theory of gravity .

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Early Universe in view of a modified theory of gravity

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Abstract

We study the quantum evolution of the early Universe, its semi-classical analogue together with inflationary regime, in view of a generalized modified theory of gravity. The action is built by supplementing the non-minimally coupled scalar–tensor theory of gravity with scalar curvature squared term and a Gauss–Bonnet-dilatonic coupled term. It is generalized, since all the parameters are treated as arbitrary functions of the scalar field. It is interesting to explore the fact that instead of considering additional flow parameters, an effective potential serves the purpose of finding inflationary parameters. The dilaton stabilization issue appears here as a problem with reheating. Addition of a cosmological constant term alleviates the problem, and inflation is effectively driven by the vacuum energy density. Thus Gauss–Bonnet term might play a significant role in describing late-time cosmic evolution.

Keywords: generalized action, early Universe, canonical quantization, inflation

(Some figures may appear in colour only in the online journal)

1. Introduction

It is well known fact that the 'standard model of cosmology' based on general theory of relativity (GTR) explains a long evolution history of the Universe, right from the structure formation, and the formation of CMBR (at a redshift $z \approx 3200$) up to the recent decelerated matter dominated era (at a redshift $z \approx 1$), once the seed of perturbations is assumed to exist. Nevertheless, it has already been established that gauge-invariant divergences make GTR non-renormalizable, and also that it can not quite accommodate observations in connection Sn1a

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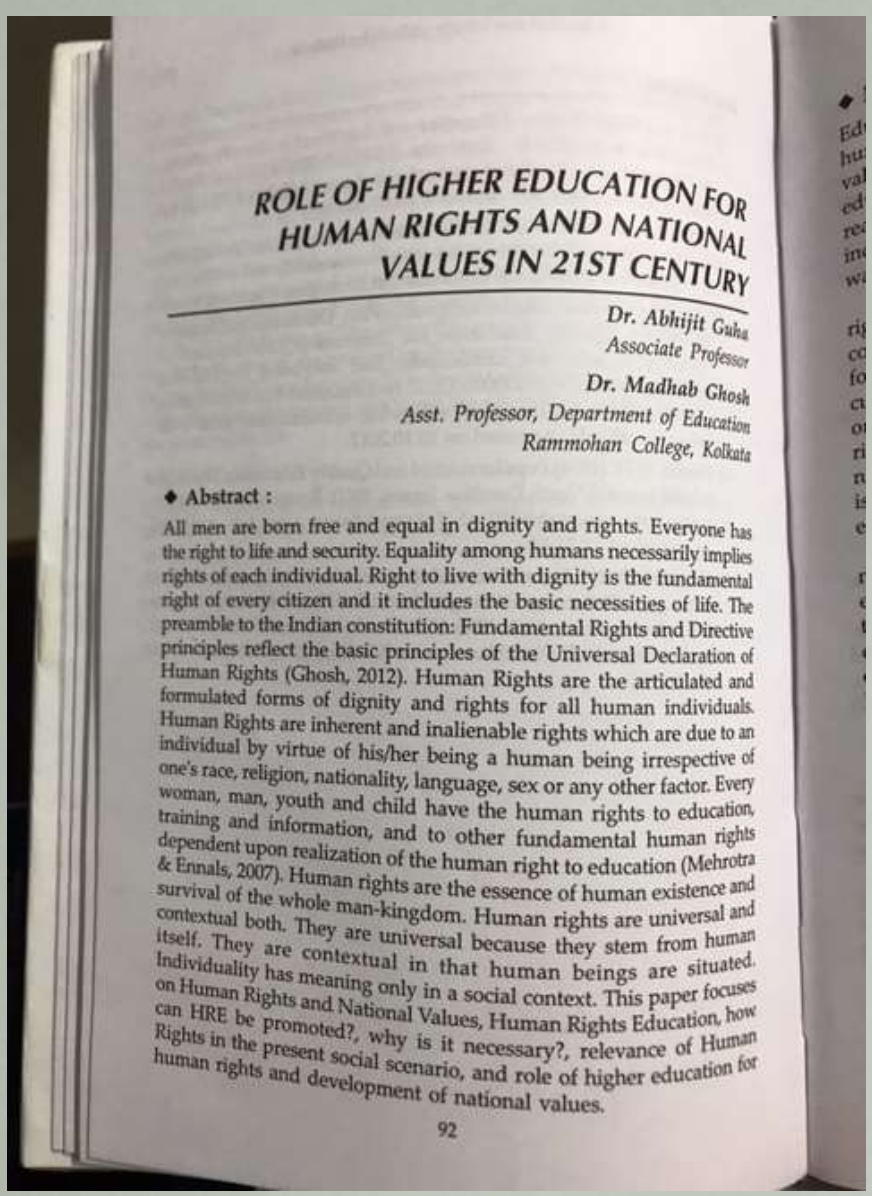

ROLE OF HIGHER EDUCATION FOR HUMAN RIGHTS AND NATIONAL VALUES IN 21ST CENTURY

Dr. Abhijit Guha
Associate Professor
Dr. Madhab Ghosh
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Rammohan College, Kolkata

◆ **Abstract :**

All men are born free and equal in dignity and rights. Everyone has the right to life and security. Equality among humans necessarily implies rights of each individual. Right to live with dignity is the fundamental right of every citizen and it includes the basic necessities of life. The preamble to the Indian constitution: Fundamental Rights and Directive principles reflect the basic principles of the Universal Declaration of Human Rights (Ghosh, 2012). Human Rights are the articulated and formulated forms of dignity and rights for all human individuals. Human Rights are inherent and inalienable rights which are due to an individual by virtue of his/her being a human being irrespective of one's race, religion, nationality, language, sex or any other factor. Every woman, man, youth and child have the human rights to education, training and information, and to other fundamental human rights dependent upon realization of the human right to education (Mehrotra & Ennals, 2007). Human rights are the essence of human existence and survival of the whole man-kingdom. Human rights are universal and contextual both. They are universal because they stem from human itself. They are contextual in that human beings are situated. Individuality has meaning only in a social context. This paper focuses on Human Rights and National Values, Human Rights Education, how can HRE be promoted?, why is it necessary?, relevance of Human Rights in the present social scenario, and role of higher education for human rights and development of national values.

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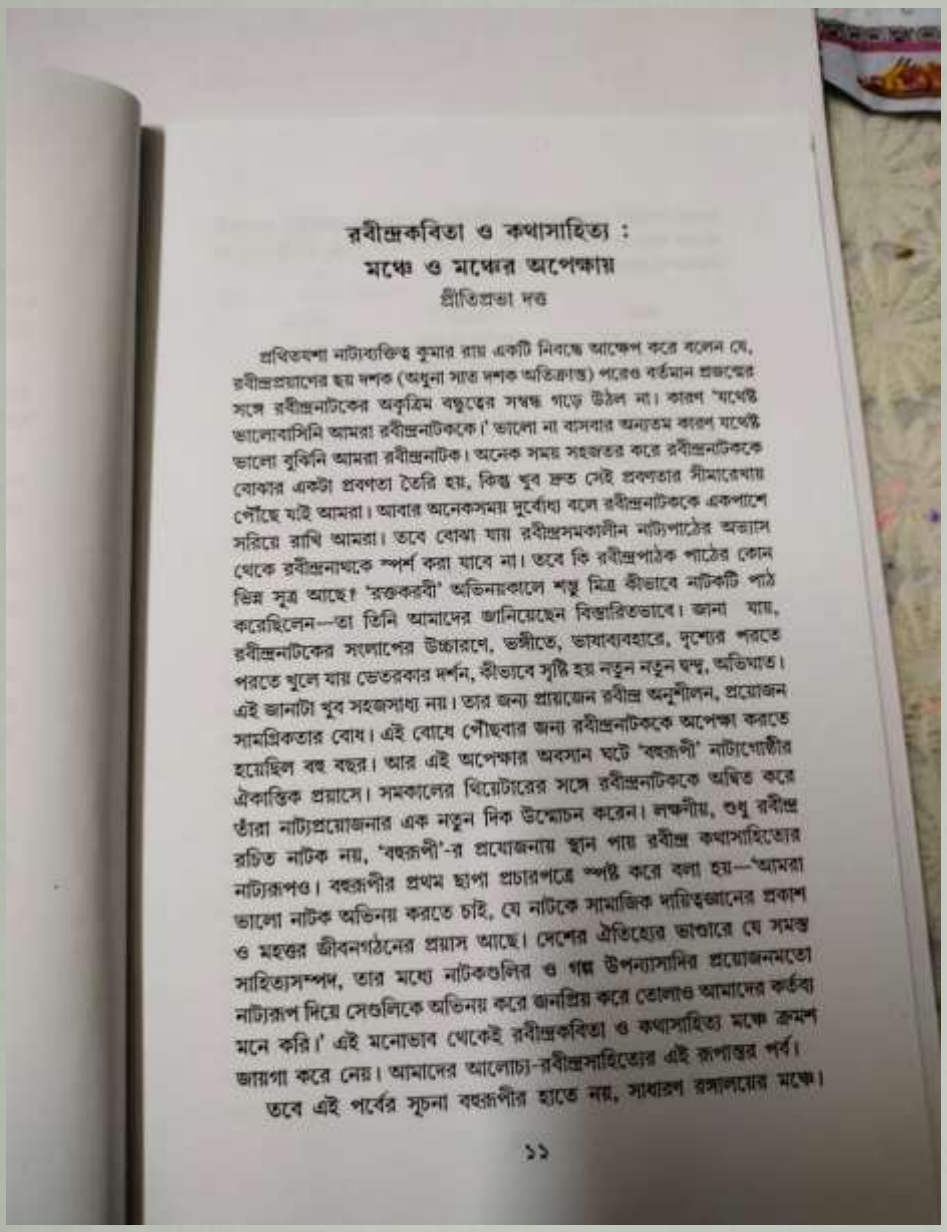

রবীন্দ্রকবিতা ও কথাসাহিত্য :
মঞ্চে ও মঞ্চের অপেক্ষায়
প্রীতিপ্রভা দত্ত

প্রথিতযশা নাট্যব্যক্তিত্ব কুমার রায় একটি নিবন্ধে আক্ষেপ করে বলেন যে, রবীন্দ্রপ্রয়াণের ছয় দশক (অধুনা সাত দশক অতিক্রান্ত) পরেও বর্তমান প্রজন্মের সঙ্গে রবীন্দ্রনাটকের অকৃত্রিম বন্ধুত্বের সম্বন্ধ গড়ে উঠল না। কারণ 'যথেষ্ট ভালোবাসিনি আমরা রবীন্দ্রনাটককে।' ভালো না বাসবার অন্যতম কারণ যথেষ্ট ভালো বুঝিনি আমরা রবীন্দ্রনাটক। অনেক সময় সহজতর করে রবীন্দ্রনাটককে বোঝার একটা প্রবণতা তৈরি হয়, কিন্তু খুব দ্রুত সেই প্রবণতার সীমারেখায় পৌঁছে যাই আমরা। আবার অনেকসময় দুর্বোধ্য বলে রবীন্দ্রনাটককে একপাশে সরিয়ে রাখি আমরা। তবে বোঝা যায় রবীন্দ্রসমকালীন নাট্যপাঠের অভ্যাস থেকে রবীন্দ্রনাথকে স্পর্শ করা যাবে না। তবে কি রবীন্দ্রপাঠক পাঠের কোন ভিন্ন সূত্র আছে? 'রক্তকরবী' অভিনয়কালে শম্ভু মিত্র কীভাবে নাটকটি পাঠ করেছিলেন—তা তিনি আমাদের জানিয়েছেন বিস্তারিতভাবে। জানা যায়, রবীন্দ্রনাটকের সংলাপের উচ্চারণে, ভঙ্গীতে, ভাষাব্যবহারে, দৃশ্যের পরতে পরতে খুলে যায় ভেতরকার দর্শন, কীভাবে সৃষ্টি হয় নতুন নতুন দ্বন্দ্ব, অভিঘাত। এই জানাটা খুব সহজসাধ্য নয়। তার জন্য প্রায়োজন রবীন্দ্র অনুশীলন, প্রয়োজন সামগ্রিকতার বোধ। এই বোধে পৌঁছবার জন্য রবীন্দ্রনাটককে অপেক্ষা করতে হয়েছিল বহু বছর। আর এই অপেক্ষার অবসান ঘটে 'বহুরূপী' নাট্যগোষ্ঠীর ঐকান্তিক প্রয়াসে। সমকালের থিয়েটারের সঙ্গে রবীন্দ্রনাটককে অন্বিত করে তাঁরা নাট্যপ্রয়োজনার এক নতুন দিক উন্মোচন করেন। লক্ষণীয়, শুধু রবীন্দ্র রচিত নাটক নয়, 'বহুরূপী'-র প্রযোজনায় স্থান পায় রবীন্দ্র কথাসাহিত্যের নাট্যরূপও। বহুরূপীর প্রথম ছাপা প্রচারপত্রে স্পষ্ট করে বলা হয়—'আমরা ভালো নাটক অভিনয় করতে চাই, যে নাটকে সামাজিক দায়িত্বজ্ঞানের প্রকাশ ও মহত্তর জীবনগঠনের প্রয়াস আছে। দেশের ঐতিহ্যের ভাণ্ডারে যে সমস্ত সাহিত্যসম্পদ, তার মধ্যে নাটকগুলির ও গল্প উপন্যাসাদির প্রয়োজনমতো নাট্যরূপ দিয়ে সেগুলিকে অভিনয় করে জনপ্রিয় করে তোলাও আমাদের কর্তব্য মনে করি।' এই মনোভাব থেকেই রবীন্দ্রকবিতা ও কথাসাহিত্য মঞ্চে ক্রমশ জায়গা করে নেয়। আমাদের আলোচ্য-রবীন্দ্রসাহিত্যের এই রূপান্তর পর্ব।

তবে এই পর্বের সূচনা বহুরূপীর হাতে নয়, সাধারণ রঙ্গালয়ের মঞ্চে।

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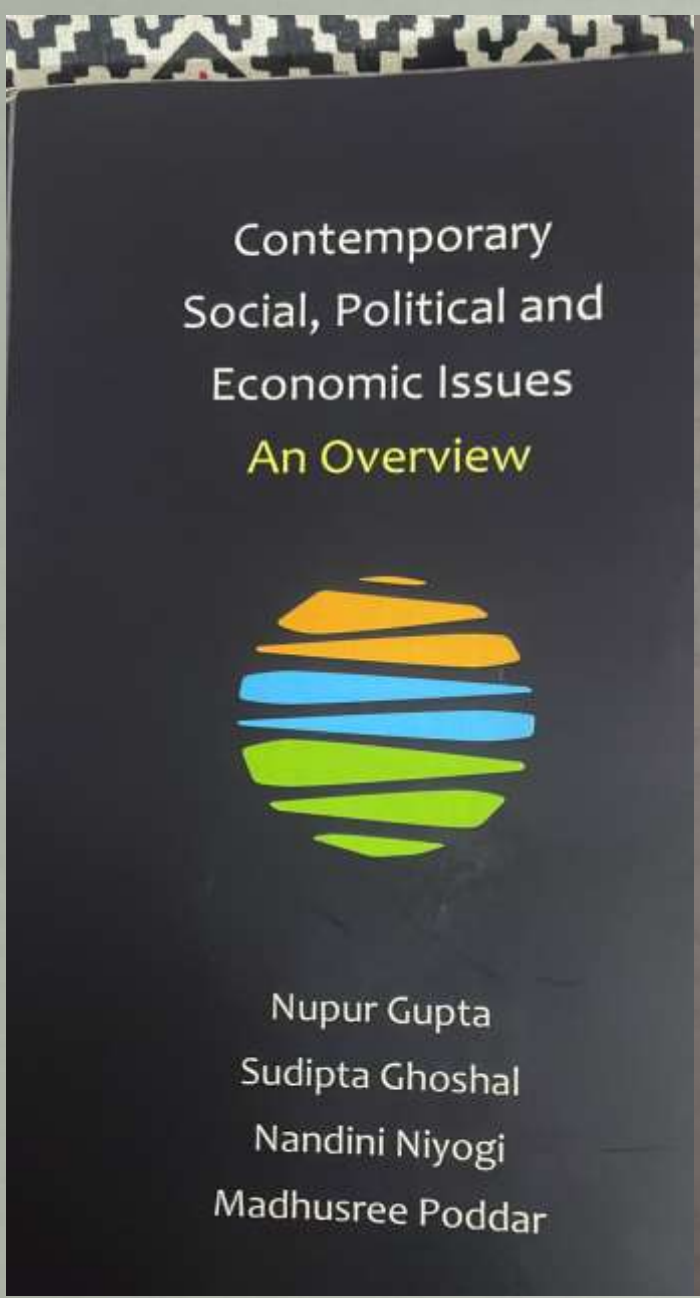
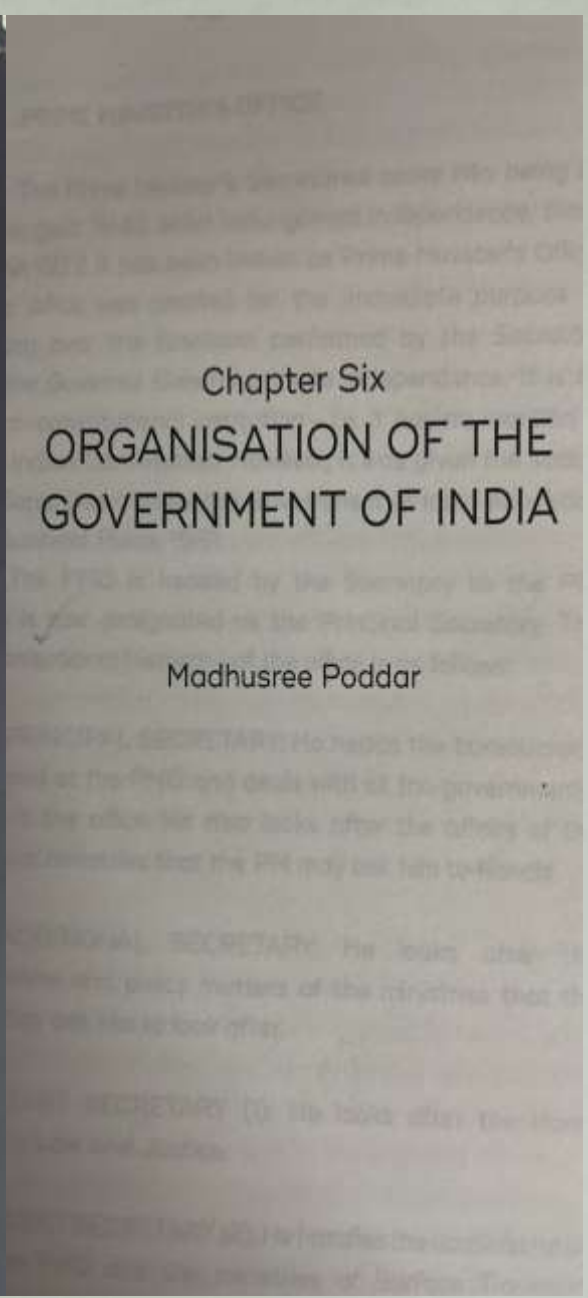
Name of the teacher: Madhushree Poddar
Title of book/chapter/paper: Organisation of the Government of India





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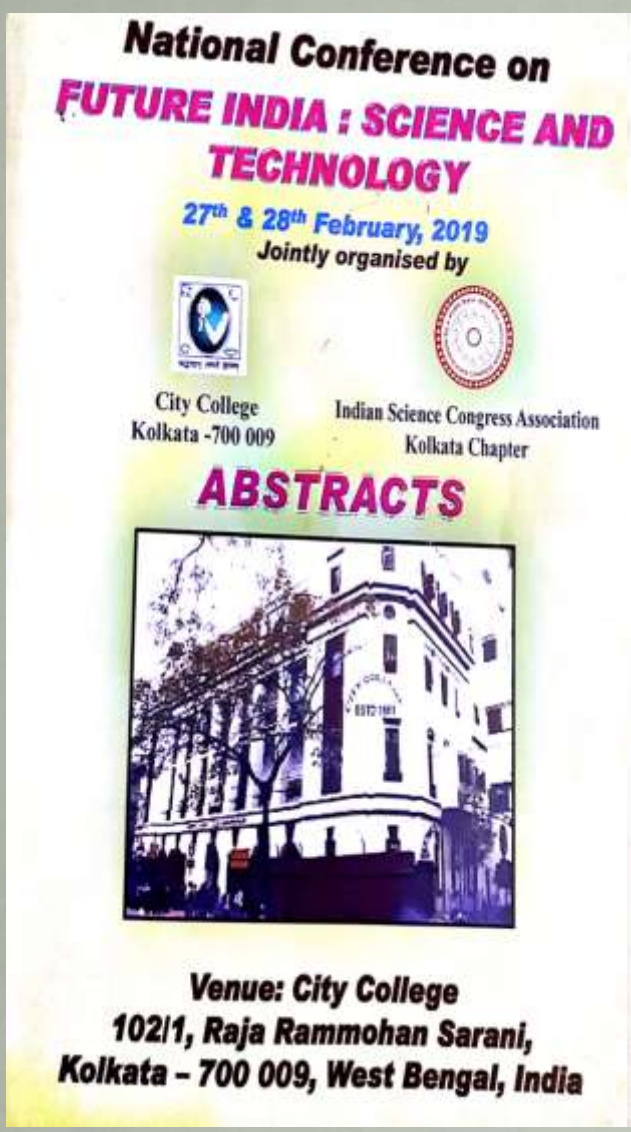
Year: 2019

Name of the teacher: Dr. Samarendra Nath Banerjee
Title of book/chapter/paper: A new perspective in the field of Chromosome research: Role of chromosomal arrangements in evolution and cancer.



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ABSTRACTS

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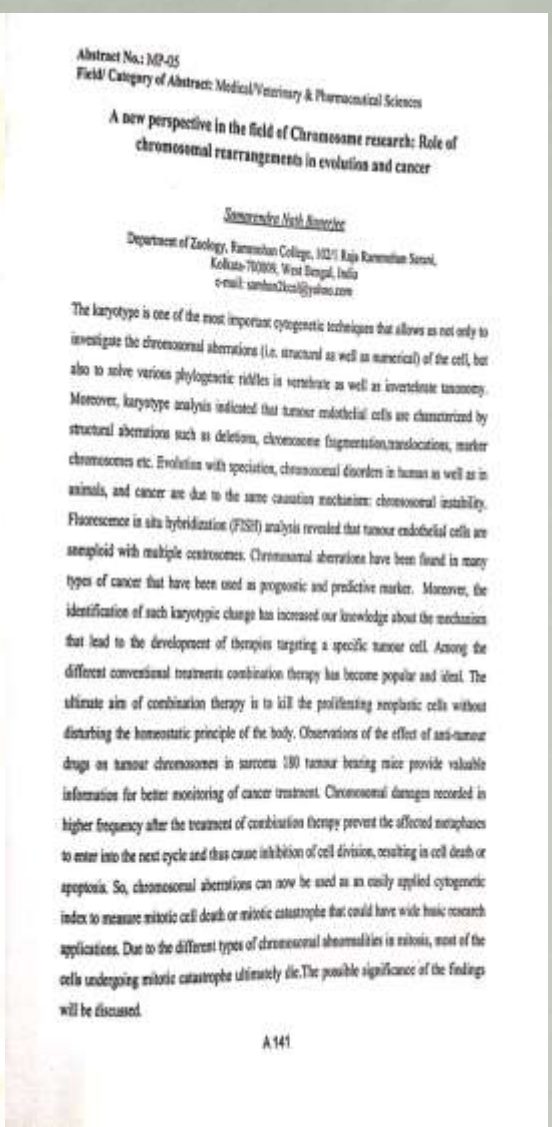

Abstract No.: MP-05
Field/ Category of Abstract: Medical/Veterinary & Pharmaceutical Sciences

A new perspective in the field of Chromosome research: Role of chromosomal rearrangements in evolution and cancer

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The karyotype is one of the most important cytogenetic techniques that allows us not only to investigate the chromosomal aberrations (i.e. structural as well as numerical) of the cell, but also to solve various phylogenetic riddles in vertebrate as well as invertebrate taxonomy. Moreover, karyotype analysis indicated that tumour endothelial cells are characterized by structural aberrations such as deletions, chromosome fragmentation,translocations, marker chromosomes etc. Evolution with speciation, chromosomal disorders in human as well as in animals, and cancer are due to the same causation mechanism: chromosomal instability. Fluorescence in situ hybridization (FISH) analysis revealed that tumour endothelial cells are aneuploid with multiple centrosomes. Chromosomal aberrations have been found in many types of cancer that have been used as prognostic and predictive marker. Moreover, the identification of such karyotypic change has increased our knowledge about the mechanism that lead to the development of therapies targeting a specific tumour cell. Among the different conventional treatments combination therapy has become popular and ideal. The ultimate aim of combination therapy is to kill the proliferating neoplastic cells without disturbing the homeostatic principle of the body. Observations of the effect of anti-tumour drugs on tumour chromosomes in sarcoma 180 tumour bearing mice provide valuable information for better monitoring of cancer treatment. Chromosomal damages recorded in higher frequency after the treatment of combination therapy prevent the affected metaphases to enter into the next cycle and thus cause inhibition of cell division, resulting in cell death or apoptosis. So, chromosomal aberrations can now be used as an easily applied cytogenetic index to measure mitotic cell death or mitotic catastrophe that could have wide basic research applications. Due to the different types of chromosomal abnormalities in mitosis, most of the cells undergoing mitotic catastrophe ultimately die.The possible significance of the findings will be discussed.

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