

Curriculum Vitae

Name : Professor Chanchal Kumar Basu

Fields of Research Interest : Topology, Measure & Integration

**Present : Prof. & Head, Dept. of Mathematics, West Bengal State University,
Designation** Barasat, 24 Pgs (N), Kolkata- 700126, India.

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(Former **Vice Chancellor** of West Bengal State University)

Permanent Positions holds/held :

- **Professor**, Dept. of Mathematics, **West Bengal State University**, 10.02.2009 till date
- **Associate Professor**, Dept. of Mathematics, **Kalyani University**, 08. 03. 2007 – 09. 02. 2009
- **Reader**, Dept. of Mathematics, **Kalyani University**, 08. 03. 2004- 07. 03.2007
- **Lecturer (Sr. Scale)**, Dept. of Mathematics, **Kalyani University**, 02. 02. 2001 – 07. 03. 2004
- **Senior Lecturer**, Dept. of Mathematics, **Ananda Mohan College**, Kolkata, 08.03.1999 – 01.02.2001
- **Lecturer**, Dept. of Mathematics, **Ananda Mohan College**, Kolkata, 24. 11.1997 – 07.03.1999
- **Lecturer**, Dept. of Mathematics, **Tripura University**, 08.03.1995- 24.11.1997

Honor / Fellowships / Award Obtained :

- **Vice Chancellor** of West Bengal State University, 22.4.2014- 08.12.2014
- Recipient of S. N. Bose Birth Centenary **Young Scientist Award**, 1993
- Calcutta University Research Fellowship , 1988
- UGC JRF, 1988
- UGC SRF, 1990
- **CSIR Research Associateship**, 1995
- NET (Joint CSIR-UGC JRF Exam.) Qualified, 1988

Educational Qualifications :

B. Sc. (Hons. in Math) 1984 from Calcutta University

M.Sc. in Pure Mathematics 1986 from Calcutta University

Ph.D. in Pure Mathematics (Topology) 1993 from Calcutta University

Delivered Talks : In abroad

1. Delivered a **30-minutes talk** on “Uniformizable subtopology, Maximal and Minimal Uniformizable spaces” in the 15th Galway Topology Colloquium held during July 9-11, 2012, at the Mathematical Institute, **Oxford University** (U.K.)
2. Delivered a **25 minutes talk** on “Uniformizable subtopology and a sort of converse of A. H. Stone’s Theorem”, The Summer Symposium XXXIV in Real Analysis in **Wooster, Ohio**, of **Real Analysis Exchange** during July 13-17, 2010 (USA)
3. Delivered a **30-minutes talk** on “Uniformizable subtopology & disconnectedness” in the 14th Galway Topology Colloquium, **Queen's University Belfast** during August 15th to 17th, 2011,(U. K.).
4. Delivered a **50-minutes talk** on “A note on Sierpinski’s Theorem”, in the International Symposium on Topology, at the Institute of Pure and Applied Mathematics, **Chonbuk National University**, on June 16, 2010 (South Korea)
5. Presented the paper on “Generalization of E- Michael’s J- Space”, ICMS International Conference on Mathematical Sciences 2010, Bolu, **Abant Izzet Baysal University, Bolu** (Turkey).
6. Delivered a **40-minutes talk** talk on “Maximal Uniformizable spaces”, 2010 International Conference of the Honam Mathematical Society at the **Mokpo National University**, South Korea, during June 17-19, 2010 (South Korea)

In India :

1. Delivered **3 hours talk** In the Refresher course in Mathematics, on the Topic : *on Cnonical Forms* on 28.3.2017 Dept. of Pure Mathematics, **University of Calcutta**
2. Delivered **3 hours talk** In the Refresher course in Mathematics, on the Topic : Some topological properties on hyperspaces on 20.1.2014 : in the Dept. of Pure Mathematics, **University of Calcutta**
3. Delivered a **40-minutes talk** on Coarser uniformizable topology and disconnectedness, in the National Seminar on Recent Perspective on Nonlinear Mathematics and Applications, March 25-26, 2014, **Visva-Bharati University**
4. Delivered a **45-minutes talk** on A Maximal Space With Respect To A Cover, in the International Conference on Recent Trends in Mathematical Sciences and Applications, Feb. 09-11, 2016 , Dept of Math, **Burdwan University**

5. Delivered **an One hour talk**, Jordan Cnonical Form and its Application, Kalyani, UGC Sponsored National Level Seminar on Recent Developments in Mathematics and its Applications in other Branches of Science, 15 th December, 2016, Kalyani Mahavidyalaya

6. Delivered **a 45-minutes talk** on Cnonical Forms in the UGC Sponsored National Level Seminar on 17.12.2016, Sripat Singh College

Administrative / Professional Experience :

- **Vice Chancellor** of West Bengal State University, 22.4.2014- 08.12.2014
 - Member of the Court of West Bengal State University
 - Ex Co-ordinator of Internal Quality Assurance Cell (IQAC), West Bengal State University
 - Convenor of the Ph.D. Committee, West Bengal State University.
 - Head of the Department of Mathematics, West Bengal State University
 - External member of Board of Studies of Visva-Bharati University
 - Chairperson of the PG-Board of Studies, West Bengal State University.
 - Chairperson of the Under Graduate Board of Studies, West Bengal State University
 - Subject Expert of various selection committees of different Universities for University Teacher Selection
 - Subject Expert of various selection committees of College Service Commission for College Teacher Selection
 - Subject Expert of various selection committees for promotion under CAS of college teachers of several Colleges
 - Reviewer of several International Journals , Zentralblatt math
 - Chaired Sessions of National & International Seminars
 - Subject Expert for Ph.D. Viva –Voce of Various Universities
 - Resource persons in Refresher Course in Pure Math, Calcutta University, 2013, 2017
 - Ex Member of the Faculty Council of PG –Board of Studies, Kalyani University.
 - Ex External member of Board of Research Studies of Kalyani University.
 - Ex Co-ordinator of all Science Departments of West Bengal State University
 - Ex Member of the Academic committee, West Bengal State University
 - Ex Member of PG –Board of Studies of Mathematics, Burdwan University
 - Ex Member of PG –Board of Studies of Mathematics, Sidho Kanho Birsha University
 - Member of UG –Board of Studies of Mathematics, Sidho Kanho Birsha University
- (iii)

- Ex External Member of the UG- Board of Studies, Kalyani University
- Convenor of PG – Board of studies, Dum Dum Motijheel College.
- Convenor of PG – Board of studies, BKC College
- Convenor of PG – Board of studies, APC College
- Convenor of PG – Board of studies, BRSN College
- Ex Nominated Member of the Governing Body, Barasat Govt. College.
- Ex Nominated Member of the Governing Body, Panihati Mahavidyalaya
- Ex Nominated Member of the Governing Body, Sree Chaitanya College
- Life Member of Tripura Mathematical Society.
- Nominated as a Judge in the third State Level Inspire Award Science Competition by the Commissioner of School Education, West Bengal, 2013

Ph.D. Research Guidance: Several students got awarded for Ph.D. Degrees

Teaching Experience : 27 years

PG- Level : 24 years; in i) **Tripura University** ii) **Kalyani University**
iii) **West Bengal State University**

UG- Level : 3 years; in Ananda Mohan College, Kolkata

Subject Taught at PG- Level :

Algebra, General Topology, Linear Algebra, Algebraic Topology, Functional Analysis, Operator Theory, Real Analysis, Measure & Integration , Complex Analysis

List of Publications of C. K. Basu :

1. θ -equivalent spaces – a new approach to θ -equivalent spaces and semi-regular properties, **Indian J. Pure and Applied Math.** , 22 (9), 745- 750, 1991 (**INSA**), *ISSN: 0019-5588* (with M.N.Mukherjee)
2. On semi- θ -closed sets, semi- θ -connectedness and some associated mappings, **Bull. Cal. Math. Soc.** 3, 227- 238, 1991, *ISSN: 0008-0659* . (with M.N.Mukherjee)
3. θ -rigid sets in topological spaces, **Analele Stintifice ale Universitatii, Al. I. CUZA din IASI**, Toml XXXVIII, S.I. Mat. 1992 f. 2, 189-194 (**Romania**), *ISSN 1221-8421* (with M.N.Mukherjee & S. Raychoudhury)

4. Further characterizations of s-closed spaces, **Indian J. Pure and Appl. Math.** 23 (9), 635- 641, 1992(**INSA**), *ISSN: 0019-5588* (with S. Ganguly)
5. More on s-closed spaces, **Soochow J. Math.**,18 (4) 1992, 409-418 (Republic of **China**), *ISSN 0250-3255* (with S. Ganguly)
6. On S-closed and s-closed spaces, **Bull Malaysian Math. Soc.** (second series) 15 (1992) 1-7(**Malaysia**), *ISSN: 0126-6705* (with M.N.Mukherjee)
7. s-closed spaces and Multifunctions, **Soochow J. Math.**,19 (2) 1993, 213-223 (Taiwan, Republic of 418(Republic of **China**), *ISSN 0250-3255* (with S. Ganguly)
8. On θ -semi-closed functions, **Glasnik Mat**, 28 (48) 1993, 131-138 (**Corasia**) *ISSN 0017-095X*
9. On nearly compact spaces and δ^* -continuous functions, **Boll Un. Mat. Ital**, (7) 8-A (1994), 223- 232 (**Italy**)
10. A new regular measure on topological spaces –II, **Jour. of Pure. Math.**, 12 (1995) 7-15; *ISSN 2277-355X* (with S. Ganguly & S. Sinha Ray)
11. On locally s-closed spaces, **Internat. J. Math.and Math. Sci.**, vol. 19 (1),1996, 67-74 (**USA**), *ISSN: 0161-1712*
12. A new regular measure on topological spaces-I, **Far. East. Math. Sci.**, Special vol. (1997), Part-I, 35-47, *ISSN: 0972-0871* (with S. Ganguly & S. Sinha Ray)
13. Existence of an invariant measure on a generalized topological group, **Bull. Cal. Math. Soc.** 131- 134 (1997), *ISSN 0008-0659* (with S. Ganguly & S. Sinha Ray)
14. Existence and uniqueness of an invariant integral on more general class of functions in a generalized topological group, **Jour. of Pure Math.**, Vol.14, 10-17, 1997; *ISSN 2277-355X* (with S. Ganguly & S. Sinha Ray)
15. On strongly irresolute and γ -continuous functions, **Jour. of Pure Math.**, Vol. 14, 35-41, 1997; *ISSN 2277-355X*
16. On s-perfect functions, **Atti sem Mat. Univ. Modena** LI, 215-22, 2003, (**Italy**), *ISSN 0041-8986*
17. A class of spaces and their anti spaces, **Tamkang Journal of Maths.** Vol. 34, No. 4, Winter 2003, 357-364 (Republic of **China**), *ISSN 0049-2930*

18. On δ -perfect Functions, **Tamkang Journal of Maths.**,2004, 35, No. 3, 207-212, (Taiwan, Republic of **China**), *ISSN 0049-2930*
19. Properties of Almost Continuous Multifunctions, **Southeast Asian Bulletin of Mathematics**, 2008, 32, 223-234 (Taiwan, Republic of **China**), *ISSN 0129- 2021* (with M.K.Ghosh)
20. A Generalization of H-closed Spaces, **Tamkang Journal of Mathematics**, Vol. 39, no. 2, 143-154, summer 2008 (Taiwan, Republic of **China**), *ISSN 0049-2930* (with M.K.Ghosh & S.S. Mandal)
21. A New Kind of Cluster Sets and its Applications, **Missouri Journal of Mathematical Sciences**, (**USA**), 21 (3) 2009 October, 198-205 (**USA**), *ISSN 0899-6180* (with M.K.Ghosh)
22. $C\text{-}(n)\beta(\gamma, \gamma')$ -Irresolute Functions with Their Stronger and Weaker Forms, **Journal of Advanced Research in Applied Mathematics** , Vol. 6, Issue. 1, 2014, pp. 66-79 *ISSN: 1942-9649*(with B .M. Uzzal Afsan)
23. β -Closed Spaces and β - θ -Subclosed Graphs, **European Journal of Pure and Applied Mathematics**, vol. I, No. 3, (2008), 40 -509 (**Turkey**), *ISSN:1307-5543* (with M.K.Ghosh)
24. Degeneracy of some Cluster sets, **Italian Journal of Pure and Applied Mathematics**, No. 28 (2011) Pages 63-78 (**Italy**), *ISSN 2239-022 7* (with B.M Uzzal Afsan & S.S. Mandal)
25. Functions with Strongly β - θ - Closed Graphs, **Mathematica**, 51 (74), No 2, 2009, pp. 119-128 (**Romania**), *ISSN: 1222-9016*. (with B.M Uzzal Afsan & S.S. Mandal)
26. Locally β -Closed Spaces, **European Journal of Pure and Applied Mathematics**, vol.2, No. 1, 2009, 85-96(**Turkey**), *ISSN:1307-5543* (with M.K.Ghosh)
27. A Note On Disconnectedness, **Chaos Solitons & Fractals** (**Elsevier**), 42 (2009) 3242-3246 (**Amsterdam**), *ISSN: 0960-0779* (with S.S. Mandal)
- 28 A Class of Functions and Separation axioms with respect to an operation, **Hacettepe Journal of Mathematics & Statistics**, vol. 38 (2), 2009,103-118 (**Turkey**), *ISSN 1303-5010*. (with B.M Uzzal Afsan & M.K.Ghosh).

29. Pw-Closedness and Its Generalization with respect to a grill, **Sarajevo Journal of Mathematics**, Vol.7 (20) (2011), 1–13 (**Bosnia**), *ISSN 1840-0655* (with B.M Uzzal Afsan)
30. Non- Continuous Functions Associated with A Covering Properties defined by β -open sets, **Real Analysis Exchange**, Vol.35(1) 2009/2010,1-13 (**USA**), *ISSN: 01471937*. (with M.K.Ghosh)
31. $P^t(\omega_r, s)$ - closed spaces and pre- (ω_r, s) t - θ_f -cluster sets, **Comm. Korean Math. Soc.**, 26 (2011), No. 1, pp. 135- 149 (**South Korea**), *ISSN 1225-1763* (with B.M Uzzal Afsan)
32. Uniformizable subtopology and a sort of converse of A. H. Stone's Theorem, **Real Analysis Exchange** S.S. 2010 pp. 67-75 (**USA**), *ISSN: 01471937* (with S.S. Mandal)
33. s_{ω}^* -closedness in fuzzy topological spaces, **Canadian Journal of Pure & Applied Sciences** (British Columbia) Vol. 5, No. 1, pp. 1439-1447, Feb 2011 (**Canada**), *ISSN: 1715-9997* (with B.M Uzzal Afsan)
34. Generalization of E- Michael's J- Space, **American Institute of Physics (AIP)** Conference Proceedings, Volume 1309, pp. 124-139(2010) (**USA**), *ISSN 15517616,0094-243X* (with M. K. Ghosh & S.S. Mandal)
35. Some new classes of spaces and associated graphs, **Journal of Advanced Research in Pure Mathematics** Volume 4, Issue 2, Pages 59 - 75 (2012) (**USA**), *ISSN: 1943-2380*
36. Fuzzy topological entropy of fuzzy continuous functions on fuzzy topological spaces, **Applied Mathematics letters**, 24 (2011) 2030–2033 (**Elsevier**) (**USA**), *ISSN: 0893-9659* (with B.M Uzzal Afsan)
37. Contra- e -Continuous Functions, **Gen. Math. Notes**, Vol. 9, No. 2, April 2012, pp.1-18; *ISSN 2219-7184* (with M.K.Ghosh)
38. γ - β -connectedness, **International Journal of Pure and Applied Mathematics** 2012 **Bulgaria**), Volume 81 No. 1 2012, 21-32, *ISSN 1311-8080* (with M.K.Ghosh)
39. P_t closedness modulo grill and $P_{\theta t}$ Perfect functions, **Journal of Advance**
(ω_r, s) (ω_r, s)
Research in Applied Mathematics, Vol. 7, Issue.1, 2015, pp. 1-11 *ISSN No. 1942 9649* (with B.M Uzzal Afsan)

40. WEIGHTED SHARING OF A SMALL FUNCTION OF A MEROMORPHIC FUNCTION AND ITS DERIVATIVES, **International Journal of Mathematical Archive-5(3)**, 2014, 111-118 ISSN : 2229 – 5046 (with T. Lowha)

41. Generalized connectedness on generalized topologies, **Journal of Advance Research in Applied Mathematics**, In Press, doi: 10.5373/jaram., Vol 6, 2014,ISSN No. 1942- 9649 (USA) (with M.K.Ghosh)

42. Minimal Uniformizability Revisited in Terms of Normal Sequence of Covers, **Lobachevskii Journal of Mathematics**, 2015, Vol. 36, No. 2, pp. 140–144 (with S.S. Mandal) (Russia)

43. Maximal Tychonoff Spaces, **Publications de l'Institut Mathematique (Serbia)** Nouvelle série, tome 99(113) (2016), 217–225 ; ISSN: 0350-1302 (with S.S. Mandal) (Serbia)

Workshop / School Attended (India & Abroad) :

1. CIMPA- Egypt Winter School on Applied Functional Analysis at African University, Aswan, Egypt, during January13- 31,1990 (Egypt)

2. Atiyah- Singer Index Theorem Workshop, April 10-29,1989, Indian Statistical Institute, Bangalore

3. UGC Sponsored Instructional conference on C^* algebras, December 5-26,1988, University of Hyderabad

Seminar / conference attended (India and Abroad) : No. of Seminar / Conference attended : More than 30