



i. Name of the Faculty: Dr. Nur Hussain

ii. Designation: Lecturer (3f)

iii. Department: Physics

iv. Date of Birth: 01/03/1988

v. Unique id: 1-9444030848

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vi. Educational Qualifications:

Degree	University
B.Sc. in Physics (2011)	Gauhati University
M.Sc. in Physics (2013)	Gauhati University
PhD in Physics (2020)	Gauhati University

vii. Work Experience:

Teaching	Research	Industry	Others
	(1) Five years working experience as a JRF in a project from CERN, Switzerland. Main responsibility was to analyze the experimental data of LHC-ALICE, present the results in the conferences and publish the results in the reputed journals. (2) Experience in C++ programming with ROOT. (3) Experience in data taking and data analysis of Large Hadron Collider Experiment (LHC), CERN, Switzerland. (4) Good experience in Monte Carlo data simulation. (5) Working experience with High-Performance Computing Cluster (HPCC).		

viii. Area of Specialization: Nuclear and High Energy Physics

ix. Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate Diploma Level: Diploma course: Semester classes have been taken since 25th Feb 2021 in Physics for the Diploma courses in Civil, Electrical and Agriculture engineering.

x. Research guidance

- **No. of papers published in National/ International Journals/ Conferences : N/A**
- **Master : N/A**
- **Ph.D : N/A**

xi. Projects carried out: ALICE-Upgrade, Operation and Utilization, project from CERN, Switzerland. Five years working experience in this project as a JRF.

xii. Patents: N/A

xiii. Technology Transfer: N/A

xiv. Research Publications:

1. Nur Hussain and Buddhadeb Bhattacharjee, Role of net baryon density on rapidity width of identified particles from the lowest energies available at the CERN Super Proton Synchrotron to those at the BNL Relativistic Heavy Ion Collider and at the CERN Large Hadron Collider, Phys. Rev. C **96**, 024903 (2017).

2. Nur Hussain et al. (ALICE Collaboration), Production of charged pions, kaons and (anti)protons in Pb-Pb and inelastic pp collisions at $\sqrt{s_{NN}} = 5.02$ TeV, Phys. Rev. C **101**, 044907 (2020).

3. Kalyan Dey, Nur Hussain and B. Bhattacharjee, A Hadronic Model Calculation of Elliptic Flow in Heavy Ion Collision at FAIR energies, HORIZON, ISSN 2250-0871, Vol. 3, 2013.

4. N. Hussain et al. (ALICE collaboration), Measurements of inclusive jet spectra in pp and central Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV Phys. Rev. C **101** (2020), 034911.

5. N. Hussain et al. (ALICE collaboration), Scattering studies with low-energy kaon-proton femtoscopy in proton-proton collisions at the LHC, Phys. Rev. Lett. **124** (2020) 092301.

6. N. Hussain et al. (ALICE collaboration), Multiplicity dependence of (multi-)strange hadron production in proton-proton collisions at $\sqrt{s} = 13$ TeV, Eur. Phys. J. C **80**, 167 (2020).

7. N. Hussain et al. (ALICE collaboration), Studies of J/ ψ production at forward rapidity in Pb-Pb collisions at $\sqrt{s_{NN}} = 5.02$ TeV, JHEP **02** (2020) 041.

8. N. Hussain et al. (ALICE collaboration), Exploration of jet substructure using iterative declustering in pp and Pb-Pb collisions at LHC energies, Phys. Lett. B, **802** (2020) 135227

xv. No. of Books published with details: Two chapters

1. Matter at extreme conditions of temperature and energy density.

-Nur Hussain, Accelerating science, Vol. V, (2019), ISBN-978-93-5382-423-5.

2. Widths of the rapidity distribution of charged kenos produced in Pb-Pb collisions at Super proton synchrotron (SPS) energies

-Nur Hussain, Frontiers in basic physics and application, 2020, ISBN-978-81-933014-8-7

