

## **BIODATA OF DR. B. JENA**

B.Sc (Engg), M.Tech, M.Sc (Engg), Ph.D (Manchester) F.I.E(I), LM ISTE.  
Ex-Professor of R.E.C., Rourkela (Orissa)

01. Name : Bhagabt Jena
02. Data and place of birth : The 3<sup>rd</sup> May 1941
03. Permanent Address : At/Po – Bari – Cuttack, Dist-Jajpur  
Orissa, India.
04. Educational Qualifications (Beginning with Bachelor degree)
- | <b>Degree</b>                 | <b>University / Institution</b>                                         |
|-------------------------------|-------------------------------------------------------------------------|
| B.Sc Engg (Civil)             | Utkal University,<br>University College of Engineering,<br>Burla (1963) |
| M.Tech (Structural Engg)      | Indian Institute of Technology<br>Kharagpur (1965)                      |
| M.Sc (Engg) (Structural Engg) | University of Manchester, U.K (1968)                                    |
| Ph.D (Structural Engg)        | University of Manchester, UK (1970)                                     |
05. Field of specialisation : Limit Load Design of Steel & COncerte  
Structures, Stability Analysis Members  
and Frames.
06. Number of research papers  
published in National &  
international journals : 23
07. Number of students guided  
for Master’s degree  
thesis project : 31
08. Membership of professional  
societies : F.I.E (India), LM ISTE
09. Employment Details (Out of total 36 yrs of teaching & research)
- |                          |                      |
|--------------------------|----------------------|
| (i) Lecturer             | 1965-1971 (6 yrs)    |
| (ii) Assistant Professor | 1971 – 1975 (4 yrs)  |
| (iii) Professor          | 1975 – 2001 (26 yrs) |

(With Regional Engineering College, Rourkela)

**10. Additional administrative responsibilities taken during employment with Regional Engineering College, Rourkela.**

(i) Head of the Civil Engg Deptt	1977-1979 (2 yrs) 1983 – 1985 (2 yrs) 1992 – 1995 (3 yrs)
(ii) Chairman, Planning & Design Cell	1978-79 (1yr) 1983 – 85 (2 yrs) 1992 – 95 (3 yrs)
(iii) Member of Board of Governors of REC Rourkela	1976, 1977 (2 yrs)
(iv) Vice President of Athletic Association of the College	1975-77(2 yrs)
(v) Centre Superintendent of Engineering examinations of the University	1982-85 (3 yrs)
(vi) Warden of Halls of Residence	1990-91 (1 yr)
(vii) Dean (Academic Affairs)	1998, 1999, 2000 (3 yrs)
(viii) Chairman, House Maintenance Advisory Committee	1996-2000 (3 yrs)

(Major works attended are : (i) Leak proof treatment of concrete roofs, (ii) Renovation and repair of instructional buildings)

**11. Associated with the following Universities / Organisations in the matters of examination and recruitment processes**

- (i) Orissa Public Service Commission, Cuttack
- (ii) Railway Recruitment Board, Bhubaneswar
- (iii) The Institution of Engineers (India) Calcutta
- (iv) Directorate of Technical Education & Training, Orissa, Bhubaneswar.
- (v) Utkal University, Bhubaneswar, Orissa.
- (vi) Sambalpur University, Burla, Orissa.
- (vii) Andhra University, Visakhapatnam
- (viii) Ranchi University, Bihar.
- (ix) Indian Institute of Technology, Kharagpur.
- (x) Regional Institute of Technology, Jamshedpur.

12. **Associated with the following agencies in the matters of consultancy works on design of concrete and steel structures.**

- (i) Rourkela Steel Plant, Steel Authority of India, Rourkela, Orissa.
- (ii) State Bank of India, Bhubaneswar, Orissa.
- (iii) Hindustan Zinc Limited, Sargipalli, Orissa.
- (iv) Public Works Department and Public Health Engg Deptt of Government of Orissa.

13. **Research / Teaching and Training Experience (Total 37 yrs)**

- |                                                             |                                                                                    |
|-------------------------------------------------------------|------------------------------------------------------------------------------------|
| (i) IIT Kharagpur (2 yrs)                                   | One year course work & one year research work in Structural Engg.                  |
| (ii) University of Manchester<br>UK (3 yrs)                 | Six months course work & two & half years research work in structural engineering. |
| (iii) Building Research Centre<br>Baghdad, IRAQ (1 & ½ yrs) | Drafted the National Building Code for IRAQ                                        |
| (iv) R.E. College, Rourkela (31 yrs)                        | Teaching & research in Structural Engg at undergraduate and post Graduate level.   |

14. **Thesis submitted for various degrees**

- (i) “Ultimate strength of structures subjected to combined bending and axial load”. (With reference to two hinged R.C arches). **M.Tech Degree of IIT Kharagpur (1965)**
- (ii) “Redistribution of moments in two span unbonded prestressed concrete beams”. **M.Sc (Engg) degree of University of Manchester, UK (1968)**
- (iii) “Some aspects of the behaviour of post-tensioned prestressed concrete beams”. **Ph.D degree of University of Manchester, UK (1970)**

15. **Sponsored R&D projects completed**

- (i) “Stability of Structural Steel members and framers”. Sponsored by UGC, New Delhi (1975)
- (ii) “Studies of strength of RC Bridge Articulations”. Sponsored by BSIR Orissa (1976)
- (iii) “Limit State Design of Reinforced and Prestressed Concrete Grid Floors”. Sponsored by CSIR New Delhi (1979).
- (iv) “Standardisation of building elements for industrial production of low-cost concrete building”. Sponsored by Ministry of Education, New Delhi (1980).
- (v) “Computer Aided Limit State Design of Reinforced Concrete frames”. Sponsored by CSIR New Delhi, Oct 86 – March 90.

## 16. Computer Experience

- (i) IBM. 1620 at IIT Kharagpur (1965)
- (ii) IBM. 7044 at IIT Kanpur (1973)
- (iii) IBM. 1130 at Utkal University (1974)
- (iv) Computer Atlas Autocode at the University of Manchester, UK (1967-70)
- (v) DEC-10-India Institute of Science, Bangalore.
- (vi) VAX 11/780 Regional Engg, College, Rourkela.
- (vii) PCs

(Experience in working in both DOS and UNIX operating systems with languages like Fortran, C and C++. Structural package “STAAD/Pro” has been handled extensively)

## 17. Research Awards

- (i) Paper “Redistribution of bending moments in two-span unbonded prestressed concrete beams”  
Published in Journal of I.E (India) July 1973  
**Obtained Merit certificate of Institution of Engineers (India)**
- (ii) Paper “Flyash Cement Mortar and Cement Concrete for Strength and Economy”.  
Published in Journal of I.E (India) Vol.69, Nov.1988.  
**Obtained the George Oomen Memorial Prize for 1988-89 of Institute of Engineers (India)**
- (iii) Limit State Design of Reinforced Concrete Columns and IS 456-78.  
Published by Orissa Engineering Congress, January 1994.  
**(Awarded State Award Gold Medal & 1<sup>st</sup> prize in Civil Engineering)**

## 18. Foreign Assignment

Under foreign assignment scheme of Government of India, I have worked at Building Research Center, Baghdad, Iraq From 1981 Feb, To 1982 July as Researcher and have prepared the following documents.

- (i) Proposed Iraqi Code requirements for reinforced concrete (1982 June)
- (ii) Commentary on proposed Iraqi Code Requirements for reinforced concrete (1982 June)

## 19. Sponsored short term courses / winter schools conducted

- (i) “Some aspects of recent trends in design of concrete structures”.  
Sponsored by Works Department, Govt of Orissa, (May 1984)
- (ii) “Limit State design of Industrial Structures”.  
Sponsored by ISTE, New Delhi (Dec 1980)

## 20. Guest Lecturers delivered

- (i) Institution of Engineers (India) Delhi Centre (August 1973)
- (ii) 24<sup>th</sup> Congress of Indian Society of Theoretical and Applied Mechanics at Rourkela (Feb 1980)
- (iii) Winter School “Elastic Stability of Industrial Structures” at REC Rourkela (December 1980). Sponsored by ISTE, New Delhi.
- (iv) University of Musol, Iraq (Dec 1981). (On International Code provisions for concrete structures)
- (v) Building Research Centre, Iraq (May 1982). (On development of Code of Practice or R.C Structures)
- (vi) Annual paper meetings of I.E (India) held at Madras on Sept 12, 1988 and presented the following papers.
  - (a) Flyash cement mortar and cement concrete for strength and economy.
  - (b) Reinforced concrete beams under pure torsion.