BRIEF BIO-DATA

1. Name : **Dr. D. S. Bundela**

2. Date of birth : 01/12/1968

3. Present position & contact addresses:

Senior Scientist (Soil & Water Conservation Engineering)
Division of Irrigation & Drainage Engineering
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4. Academic record

Degree	University/ Institution	Year	Distinction, if any
B. Tech. (Agricultural Engg)	J. N.K.V.V., Jabalpur	1991	Awarded University Gold Medal
M. Tech. (Soil & Water Conservation Engineering)	I.I.T, Kharagpur	1993	
Ph D (Geoinformatics)	Cranfield University, UK	2004	

5. Research Experience:

(a) Total (yrs): 12 years

(b) Year wise breakup with position

Apr' 1995- Apr' 2001: Scientist at ICAR Research Complex for NEH Region, Barapani, Meghalaya

Apr' 01- Jun' 05: Scientist (SS) at ICAR Research Complex for NEH Region, Barapani, Meghalaya

Jun' 05- Mar' 06: Scientist (SS) at Central Soil & Water Conservation Research & Training Institute, Research Centre, Agra, UP

21 Mar' 06 – till date: Senior Scientist at Central Soil Salinity Research Institute, Karnal, Haryana

6. **Specialization**:

a) Scientific capabilities and interests (3-5 Key words)

Groundwater quality based spatial decision support system, saline and waterlogged lands mapping using remote sensing and GIS, Groundwater fluoride and nitrate contamination modelling, hydrologic and soil erosion modelling

b) Salient Accomplishments (3 to 5 in bullet form)

1. Spatial decision support system for groundwater quality being developed
2. Generated and tested terrain models from spaceborne stereogrammetry and radar interferometry, aerial photograph, DGPS, topographical maps, etc. for distributed modelling
3. Parameterized a distributed and dynamic soil erosion model, LISEM and tested for the influence of grid-cell size and source of digital elevation model on surface runoff and erosion modelling as well as identification of soil erosion and deposition areas in a watershed for developing an effective conservation plan for partial area treatment.
4. Developed hydrologic and silt monitoring systems from plot size to watershed scale and a few portable gauging system were tested in the fields.
5. Developed Soil Erosion- Productivity Impact Model for North Eastern Hill Region.

c) International Exposure

Three and half years research experience at Cranfield University, UK during doctoral program

7. Publications

a) (i) Research (Journals): 08
(ii) Books : 01
(iii) Book Chapters : 05
(iv) National/ International Seminar/ Symposia: 6+3=10
(v) Bulletins/ Technical Reports: 01

Total: 24

b) Best 5 publications of last 10 years (to be appended)

- **Bundela, D. S.** and Taylor, J. C. Influence of digital elevation models derived from radar remote sensing on prediction of runoff, soil erosion and deposition at watershed scale. *J of Hydrology* (Accepted)
- Mishra, A. K., **Bundela, D. S.** and Satapathy, K. K. (2004). Analysis and characterization of rice environment of Arunachal Pradesh. *ENVIS-Bulletin: Himalayan Ecology*, 12(1), 12-24
- **Bundela, D. S.** and Taylor, J. C. (2003) Influence of digital elevation models derived from remote sensing on improvement of predictive capacity of a distributed soil erosion model. *In: Proc. International Conference on Soil Erosion and Sediment Redistribution in River Catchments-Measurement, Modelling and Management in the 21st Century held at National Soil Resources Institute,* Silsoe from 9-11 September' 2003, 193-207
- Satapathy, K. K., **Bundela, D. S.,** Goswami, S. N. and Pathak, K. A. (1999). Conservation contour trenching in Mizoram - A case study. *Journal of Soil & Water Conservation*, 43 (3&4), 151-156
- **Bundela, D. S**., Singh, R and Misra, K. (1998). Predicting sediment yield in Barakar River Valley. *Journal of Soil & Water Conservation*, 42, 43-50

c) Best 10 publication of whole career (to be appended)

- **Bundela, D. S.** (2004) *Influence of digital elevation models derived from remote sensing on spatio-temporal modelling of hydrologic and erosion processes*. PhD full Thesis Online. Cranfield University, Silsoe, UK, p 370, https://dspace.lib.cranfield.ac.uk/retrieve/1634/Devendra_PhDThesis
- **Bundela, D. S.** and Taylor, J. C. (2003). Surface Hydrologic and Erosion Process Modelling at Catchment Scale using Geo-Informatics Technology. *In: Proc. 4th Post Graduate Research Conference* held at Silsoe on 4 June 03, 65-69.
- **Bundela, D. S.** (2002) Experience in Implementation of watershed development projects in NE Region and Planning watershed research projects. *In:* K. K. Satapathy and K. K. Dutta, eds, *Integrated Watershed Management for Sustainable Development*, ICAR Research Complex for NEH Region, Barapani, Meghalaya, 311-315
- **Bundela, D. S**., and Satapathy, K. K. (1997). Conservation technology options to transform shifting cultivation into settled cultivation in Mizoram. *In: Proc. Regional Conference on Soil & Water Conservation for permanent Farming Systems in the Hills*, organized by the Soil Conservation Society of India in collaboration with Dept. of Agriculture, Govt of Mizoram held at Aizawl from 6-7 Nov' 97, 119-124.

8. Awards/ Special recognitions (Limit to the best five)

- Commonwealth UK award for PhD program
- GATE Scholarship during 1992-93.
- University Gold Model for undergraduate programme in 1990-91