

Bio-Data of Anil Swarup

1. Name : **ANIL SWARUP**
2. Age as on 1.1.2016 : 53 Years
3. Current Position : Sr. Principal Scientist
and Address CIMFR Regional Centre, CBRI
(Email & Phone) Roorkee - 247 667 (Uttarakhand)
Email: anilsw@gmail.com
Mobile: 91-9411111471



4. Educational qualifications: (Graduation and above)

S.	Degree	Year	University	Subjects
i.	B.Sc.	1983	Garhwal Univ.	Physics, Maths, Geology
ii.	M.Sc.	1985	Garhwal Univ.	Geology

5. Work experience

Designation	Institution	From	To	Nature of Work
i Scientist 'B'	CIMFR Roorkee	09-Apr-1990	09-Apr-1995	R&D related to
ii Scientist 'C'	CIMFR Roorkee	09-Apr-1995	09-Apr-2000	Tunnelling and
iii Scientist 'E-I'	CIMFR Roorkee	09-Apr-2000	09-Apr-2006	Underground
iv Principal Scientist	CIMFR Roorkee	09-Apr-2006	09-Apr-2012	Space
v Sr.Principal Scientist	CIMFR Roorkee	09-Apr-2012	Till Date	Technology

6. Area of specialization : Tunnelling and Underground Space Technology

7. Honors/Awards received : -

8. Fellowships/Scholarships : -

9. No. of Research Publications :
- Papers in journals : 6
 - In conference proceedings : 35
 - Invited/key-note addresses : -
 - List of best 05 publications : -

- i. Swarup, A., Shinichi Akutagawa, (2001) "Application of Back Analysis in Assessing the Stability of an Indian Tunnel", Modern Tunnelling Science and Technology (IS-Kyoto), Kyoto, Japan, 30 Oct - 1 Nov. 2001.
- ii. Goel, R.K. and Swarup, Anil (2006). A Case History of Tunnelling Through Difficult Ground", World Tunnel Congress 2006, April 22 to 27, Seoul, Korea, Tunnelling and Underground Space Technology, May-July 2006, Vol. 21, Issues 3-4, pp. 362.

- iii. Goel, R.K., Swarup, A., Sheorey, P.R. (2007). "Bolt length requirement in underground openings" International Journal of Rock Mechanics and Mining Sciences, Volume 44, Issue 5, July 2007, Pages 802-811.
- iv. Prasad, V.V.R., Dwivedi, R.D., Swarup, A (2013). "Determination of support pressure for tunnels and caverns using block theory" Tunnelling and Underground Space Technology, Volume 37, August 2013, Pages 55–61
- v. Jhanwar J. C., Swarup A., Kumar P., Sangode A. G. (2015), Geotechnical study for the design of ultimate slope of an opencast rock phosphate mine. Mining Engineers' Journal, Vol. 17, No. 3, October, pp. 25-28.

10. Number of Books authored/edited : -

11. (a) No. of Patents granted/applied for : -

(b) Technologies developed, Licensed and/or commercialized: -

12. Foreign visits:

- i. Visited Russia November, 1996 under academic exchange program of DST and Russian Academy of Sciences.
- ii. Visited Czech Republic in October 1997 under CSIR-Czech Academy of Sciences Exchange Program.
- iii. Visited Kobe University, Japan in Oct. 1998 for two months under Indo-Japanese Co-operation Program of DST.
- iv. Visited Czech Republic in March - April 2004 under CSIR-Czech Academy of Sciences Exchange Program.
- v. Visited Czech Republic in May 2007 under CSIR-Czech Academy of Sciences Exchange Program.
- vi. Visited Czech Republic in April 2013 under CSIR-Czech Academy of Sciences Exchange Program.

13. Details of Professional memberships:

Life Member, ISRM
Life Member, ISRMTT
Member, ITA
Member, IGS
Member, IAEG
Member, ISEG
Member, CSI

14. Major contributions: (Max. 150 words)

Tunneling faces great challenges due to geological and environmental constrains. Tunnels have to be built for various sizes in dense urban areas, under great depth below mountains etc. The challenges to build and operate tunnels safely in modern environments have to be met by technology innovations, and with research and development.

With the necessity of infrastructure development of the country, various projects requiring construction of tunnels like railway, highways and hydroelectric projects are being planned and commissioned. These projects require designers for designing of the tunnels and

assessment of the stability of the underground structures. Tunneling in the Himalayas poses a challenge to the designers due to ever changing complex geology and very high rock covers. The R&D experience gained over years by analyzing instrumentation data of load and deformations in such tunnels provides impetus in designing these tunnels so that it can be successfully & timely constructed.

My area of work thus fulfills the requirements of Mining, Civil and Allied Industries. I have provided my expertise in the area of feasibility studies, analysis and design of tunnel excavations and supports through observational (instrumentation) based approach and using Empirical methods and Numerical methods.

15. Technologies and Products/ Services -nil-

- (i) Developed:
- (ii) Licensed:
- (iii) Commercialized:

16. Designs and Prototype Developed: -nil-

17. Honours and awards won for technological contributions or sociological impact of R&D:

Date: 1.1.2016, Roorkee

(Anil Swarup)