Bio-Data
Dr. Ujjwal Prakash

1. Name: Dr. Ujjwal Prakash

2. Address: Professor
Metallurgical and Materials Engineering Department
Indian Institute of Technology
Roorkee -247667 (Uttaranchal)

3. Date of Birth: 10-5-1964

4. Institute's Address: Indian Institute of Technology, Roorkee -247667

5. Education: B. Tech in the Year 1985 from Institute of Technology, Banaras Hindu University, (now IIT BHU) Varanasi, India in Metallurgical Engineering

PhD (Metallurgy) in the year 1990 from the University of Sheffield, Sheffield, UK.

6. Thesis Title: Effect of Rapid Solidification on Structure and Properties of Intermetallic Phases.

7. Honours and Awards

S.No.	Award	Institute	Year
1	Scholarship from Department of Metallurgy	University of Sheffield	1985-1988
2	Overseas Research Students (ORS) Award	Committee of Vice-Chancellors and Principals, United Kingdom	1985-1988
3	DRDO Technology Award	DMRL, Hyderabad	1997
4	Humboldt Fellowship	Max Planck Institute, Dusseldorf, Germany	1999
5	Best Presentation Award at annual technical meeting of Indian Institute of Metals	DMRL, Hyderabad	2000
6	Humboldt Revisit	IEHK, RWTH Aachen University, Germany	2015 2018

7. Experience:

1. 1988-1991: Research Associate at the University of Sheffield, UK
2. 1992-1997: Scientist 'C' at Defence Metallurgical Research Laboratory, Hyderabad
3. 1997-2003: Scientist 'D' at Defence Metallurgical Research Laboratory, Hyderabad
4. 1999-2000: Humboldt Fellow at Max Planck Institute, Duesseldorf, Germany (On leave from DMRL)
5. 2003-2006: Scientist 'E' at Defence Metallurgical Research Laboratory, Hyderabad
6. 2006-2015: Asssociate Professor at Indian Institute of Technology, Roorkee
7. 2015: Humboldt Fellow at IEHK, RWTH Aachen University, Germany from May to July (On leave from (IIT Roorkee). 2018: Revisit to IEHK as a Humboldt Fellow.
8. 2015 to Todate: Professor at Indian Institute of Technology, Roorkee

8. PhD Guided: 8 completed; 6 Ongoing

9. M. Tech Guided: 15 completed

10. List of research projects Completed:

i) **Project Leader** for Generation of Creep Data for Alloy 617M forge (of 800 mm diameter) of AUSC turbine rotor, Funding Agency AUSC, Project Amount 3.5 Crores, (2018-ongoing)
ii) **Project Leader** for LCF of cast 625 superalloy for turbine casing and forged 617 superalloy for rotor applications, Funding Agency AUSC, Project Amount 1.94 Crores, (2018-ongoing)
iii) **Project Leader** for Development of Low Density Steels, Funding Agency, DRDO New Delhi, Project Amount 43.77 Lacs, (2017-ongoing)
iv) **Project Member**, Creep Resistant ODS Steels Through powder forging at IIT Roorkee, Funding Agency BRNS, Mumbai, Project amount 77 Lacs, (2011-2014)
v) **Project Leader** for Development of Iron Aluminides containing carbon at IIT Roorkee, Funding Agency, DST, New Delhi, Project amount 35 Lacs, (2009-2013)
vi) **Project Leader** for project on Development of Advanced High Temperature Aluminium Alloys via Rapid Solidification Processing at DMRL, Hyderabad. Funding agency: DRDO New Delhi, Project Amount 24.6 Lakhs, Project No. DMR-187, (1992-1996)
vii) **Project Member** for project on Development of iron aluminides through ingot Metallurgy at DMRL, Hyderabad. Funding agency DRDO, New Delhi, Project Amount 24.8 Lakhs, Project N0. DMR-212, (1993-1997).

11 Publications

1. Papers in Refereed Journals

1. Mechanical Alloying and powder forging of 18%Cr oxide dispersion strengthened steel produced using elemental powders, , D. Kumar, U. Prakash, V. Dabhade, K. Laha and T. Sakthivel, Journal of Materials Engineering and Performance, 28 (2019) 242.
2. Influence of Sintering Temperature and Cooling Rate on Microstructure and Mechanical Properties of Pre-alloyed Fe–Cr–Mo Powder Metallurgy Steel, Sandeep, V. Verma, U. Prakash, P. C. Tewari and D. Khanduja, Transactions of Indian Institute of Metals, 71 (2018) 219.
3. Effect of phosphorus addition on the dry sliding behavior of Fe-P alloys prepared by powder forging, S. K. Chaurasia, U. Prakash, V, V, Dabhade and S. K. Nath, Metallography, Microstructure and Analysis, 7 (2018) 347.
4. Effect of phosphorus on microstructure and mechanical properties of iron-based alloys prepared by powder forging, S. K. Chaurasia, U. Prakash, V, V, Dabhade and S. K. Nath, Metallography, Microstructure and Analysis, 6 (2018) 561.
5. Studies on induction hardening of powder-metallurgy-processed Fe–Cr/Mo alloys, Sandeep, V. Verma, U. Prakash, P. C. Tewari and D. Khanduja, International Journal of Minerals, Metallurgy, and Materials, 24 (2017) 918.
6. High yttria ODS steels through powder forging, D. Kumar, U. Prakash, V. Dabhade, K. Laha and T. Sakthivel, Journal of Nuclear Materials, 488 (2017) 75

7. Development of oxide dispersion strengthened (ODS) ferritic steel through powder forging, Deepak Kumar, U. Prakash, V. Dabhade, K. Laha and T. Sakthivel, Journal of Materials Engineering and Performance, 26 (2017) 1817.
8. Studies on alloying process of a ferritic/martensitic oxide dispersion strengthened steel (ODS) prepared by mechanical alloying of elemental powders, R. Sunil Kumar, U. Prakash, V. V. Dabhade and K. Laha, Powder Metallurgy, 59 (2016) 350
9. Analysis of Powder Metallurgy Process Parameters for Mechanical Properties of Sintered Fe-Cr-Mo Alloy Steel, Sandeep, V. Verma, U. Prakash, P. C. Tewari and D. Khanduja, Materials and Manufacturing Processes, 32 (2017) 537.
10. Microstructure and wear behaviour of FeAl based composites containing in-situ carbides, Ravi Kant, U. Prakash, V. Agarwala and V. V. Satya Prasad, Bulletin of Materials Science, 39 (2016) 1827.
11. Effect of Nano Scale and Micro Scale Yttria Reinforcement on Powder Forged AA-7075 Composites, T. C. Joshi, U. Prakash and V.V. Dabhade, Journal of Materials Engineering and performance, 25 (2016) 1889.
12. Friction stir processing strategies to achieve uniform distribution of reinforcement particles in a surface composite, Vipin Sharma, U. Prakash, B. V. Manoj Kumar, Materials Manufacturing and Processes, 31 (2016) 1384.
13. Effect of C and Ti additions on mechanical properties of B2 FeAl. Ravi Kant, U. Prakash, V. Agarwala and V. V. Satya Prasad, Transactions of Indian Institute of Metals, 69 (2016) 845.
14. FeAl based intermetallic Matrix Composites through Melt route, Ravi Kant, U. Prakash, V. Agarwala and V. V. Satya Prasad, Transactions of Indian Institute of Metals, 68 (2015) 1155.
15. Surface composites by friction stir processing: a review, Vipin Sharma, U. Prakash, B. V. Manoj Kumar, Journal of Materials Processing Technology, 224 (2015) 117.
16. Wear behaviour of an FeAl intermetallic alloy containing carbon and titanium, Ravi Kant, U. Prakash, V. Agarwala and V. V. Satya Prasad, Intermetallics, 61 (2015) 21
17. Microstructural development during hot forging of 7075 powder, T. C. Joshi, U. Prakash and V.V. Dabhade, Journal of Alloys and Compounds, 639 (2015) 123
18. Cavitation erosion and solid particle erosion of a nitrogen alloyed austenitic stainless steel, A. Selokar, U. Prakash, D. B. Goel, B. V. Manoj Kumar, ISIJ International, 55 (2015) 1123.
19. The influence of carbon and Ti addition on microstructure and mechanical properties of Fe-22Al-5Ti alloy, Ravi Kant, A Selokar, V. Agarwala and U. Prakash, Advanced Materials Research, 1043 (2014) 17
20. Solid particle erosion of martensitic and nitrogen steels, A. Selokar, Ravi Kant, D. B. Goel and U. Prakash, Advanced Materials Research, 1043 (2014) 1123.
21. Analysis of powder metallurgy process parameters for relative density of low carbon alloy steel using design of experiments tool, Sandeep, U. Prakash, P. C. Tewari and D. Khanduja, Applied Mechanics and Materials, Vols 502-594 (2014) 72.
22. Workability Studies on high Al ferritic Fe-Al-C Alloys, R. Sunil Kumar, U. Prakash, S.K.Nath and R.G. Baligidad, Journal of Metals, 66 (2014) 1800.
23. Thermomechanical behavior of 23/8 nitrogen steel, N. Sahu, A. Selokar and U. Prakash, ISIJ International, 54 (2014) 970.
24. Creep behavior of a carbon containing Fe_3Al alloy, D.V.V. Satyanarayana, U. Prakash, S. Khaple, R.G. Baligidad and V.V.S. Prasad, Materials at High Temperatures, 31 (2014) 258.
25. Erosion behavior of Fe-Alloys for underwater components of hydroelectric power plant, A. Selokar, D. B.Goel, U. Prakash and A. Chaurasia, Transactions of Indian Institute of Metals, 66 (2013) 425.

26. A comparative study of cavitation erosive behavior of 23/8N Nitronic steel and 13/4 martensitic steel, A. Selokar, D. B.Goel and U. Prakash, Advanced Materials Research, Vol. 583 (2012) 554.
27. Fe-P soft magnetic properiesof iron for AC applications, S.K.Chaurasia , U. Prakash, K. Chandra and P. S. Misra, Advanced Materials Research, Vol 583 (2012) 289..
28. Comparisons of Sintered Technology with Powder forging for Fe-P soft magnetic alloys, S.K.Chaurasia , U. Prakash, K. Chandra and P. S. Misra, Materials Science Forum, Vol. 210 (2012) 297.
29. Development of P/M Fe-P soft magnetic alloys, S.K.Chaurasia , U. Prakash, K. Chandra and P. S. Misra, Bulletin of Materials Science, Vol. 35 (No.2) (2012) 191.
30. An air induction melting process for preparation of intermetallic alloy, R. G. Baligidad, U. Prakash and A. Radhakrishna, Indian Patent No. 242438, 2010.
31. Recycling of fine copper scrap into copper chromium alloys, , V.V.S. Prasad, Y. Satish Reddy, U. Prakash and R.G. Baligidad, Copper Topics, September 2009, pp6-17.
32. Thermo-mechanical processing of Cu-Cr alloys prepared by using electro slag crucible melting, V.V.S. Prasad, M. Sankar, Y. Satish Reddy, U. Prakash and R.G. Baligidad, Transactions of Indian Institute of Metals, Vol. 62 (No.1) (2009) 65.
33. Effect of Heat Treatment on structure and properties of P/M EIP 698P superalloy processed by Hot Isostatic Pressing, U. Prakash and D.V.V. Satyanarayana, Transactions of Powder Metallurgy Association of India, 34 (2008) 28.
34. Develoment of iron aluminides containing carbon, Transactions of Indian Institute of Metals, Vol. 61 (No.2) (2008) 1.
35. Effect of foaming characteristics of Al-based foams processed through P/M route, U. Prakash, P. Prasadachary, T. Raghu, M. Sudhakar Rao and T. Raghu, Transactions if Indian Institute of Metals, 60 (2007) 531.
36. Effect of composition on hydrogen permeation in Fe-Al alloys, U. Prakash, N. Pravathavarthini, and R.K. Dayal, Intermetallics, 15 (2007) 17.
37. Effect of process parameters on in-situ reduction of chromium oxide during electroslag crucible melting, V.V. Satya Prasad, Y. Satish Babu and U. Prakash, ISIJ International, 46 (2006) 776.
38. Production of Cu-Cr alloys by in-situ reduction of chromium oxide during air induction melting, V.V.S. Prasad, Y.S. Babu and U. Prakash, ISIJ International, 43 (2003)1280
39. Effect of carbon addition on hydrogen permeation in an Fe_3Al-based intermetallic alloy, N. Parvathavarthini, U. Prakash and R. K. Dayal, Intermetallics, 10 (2002) 329.
40. Electroslag cladding of low alloy steel with stainless steel, V. V. S. Prasad, A.S. Rao, U. Prakash and R.G. Baligidad, International journal of Welding nd Joining Technology, 7 (2002) 102.
41. Recycling of valuable scrap through electroslag processes, V. V. S. Prasad, A.S. Rao U. Prakash, V. R. Rao, P.K. Rao and K. M. Gupt, Transactions of Indian Institute of Metals, Vol. 55, Nos. 1-2, February-April 2002, pp9-14.
42. Machinable Iron aluminides containing carbon, U. Prakash and G. Sauthoff, Scripta Materialia, 44 (2001) 73.
43. Structure and Properties of Fe-Al-Ti intermetallic alloys, U. Prakash and G. Sauthoff, Intermetallics, 9 (2001) 107.
44. Production of Cu-Cr alloys by in-situ reduction of chromium oxide during electroslag crucible melting, V.V.S. Prasad, A.S. Rao and U. Prakash, Materials and Manufacturing Processes, 16 (2001) 209.

45. On elevated temperature stability of high carbon Fe-Al alloys, R.G. Baligidad, U. Prakash and A. Radhakrishna, Materials Science and Engineering A, A265 (1999) 301
46. Effect of Al-content on creep and stress rupture properties of high carbon Fe-Al alloys, R.G. Baligidad, U. Prakash and A. Radhakrishna, Materials Science and Engineering A, A269 (1999) 125.
47. Effect of thermomechanical processing and heat treatment on structure and mechanical properties of an electroslag remelted Fe-8.5wt%Al-1.1wt%C alloy, R.G. Baligidad, U. Prakash and A. Radhakrishna, Materials Science and Engineering A, A269 (1999) 120
48. Microstructure and mechanical properties of P/M Al-Fe-V-Si and Fe-Al-Ce alloys, U. Prakash, T. Raghu, A. A. Gokhale and S. V. Kamat, Journal of Materials Science, 34 (1999) 5061.
49. The effect of Mg addition on microstructure and mechanical properties of a P/M Al-Fe-Ce alloy, U. Prakash, T. Raghu, S.V. Kamat ad A.A. Gokhale, Scripta Materialia, 39 (1998) 867.
50. Processing of a high carbon Fe_3Al-based intermetallic alloy, R.G. Baligidad, U. prakash and A. Radhakrishna, Intermetallics, 6 (1998) 765.
51. Effect of processing on mechanical properties of Fe-8.5wt%Al-1.1wt%Calloy, R.G. Baligidad, U. Prakash and A. Radhakrishna, Materials Science and Engineering A, A255 (1998) 162.
52. Effect of carbon addition on structure and mechanical properties of electroslag remelted Fe-20wt%Al alloy, R.G. Baligidad, U. Prakash and A. Radhakrishna, Materials Science and Engineering A, A249 (1998) 97.
53. Effect of process variables on electroslag crucible melting of Cu-Cr alloys, V.V.S. Prasad, A.S. Rao, U. Prakash, V.R. Rao, P. K. Rao and K. M. Gupt, ISIJ International, 38 (1998) 1390.
54. Alumina additions to fluoride slags for recycling of low oxygen high conductivity copper scrap through electroslag remelting, V.V.S. Prasad, A.S.Rao, U. Prakash, V.R. Rao, P.K. Rao and K. M. Gupt, ISIJ International, 38 (1998) 1387.
55. Mechanical properties of high carbon Fe_3Al-based intermetallic alloys, R.G. Baligidad, U. Prakash and A. Radhakrishna, Materials Science and Engineering A, A257 (1998) 235.
56. Effect of carbides on embrittlement of Fe_3Al-based intermetallic alloys, R.G. Baligidad, U. Prakash, A. Radhakrishna, V.R. Rao, P.K. Rao and N.B. Ballal, Scripta Materialia, 36 (1997) 667.
57. High temperature tensile and creep properties of a cast AIM and ESR intermetallic alloy based on Fe_3Al, R.G. Baligidad, U. Prakash and A. Radhakrishna, Materials Science and Engineering A, A231 (1997) 206.
58. Thermal stability and elevated temperature mechanical properties of electroslag remelted Fe-16wt%Al-(0.14-0.5)wt%C intermetallic alloys, R.G. Baligidad, U. Prakash and A. Radhakrishna, Materials Science and Engineering A, A230 (1997) 188.
59. Effect of carbon content on high temperature tensile properties of Fe_3Al-based intermetallic alloys, R.G. Baligidad, U. Prakash, V.R. Rao, P. K. Rao and N.B. Ballal, Scripta Materialia, 36 (1997) 105.
60. Effect of Titanium substitution on structure and properties of Fe_3Al-based intermetallic alloys, U. Prakash, K. Muraleedharan, R. A. Buckley, H. Jones and P.A. Shenton, Journal of Materials Science, 31 (1996) 1569.
61. Effect of hot working on room temperature mechanical properties and stress rupture behaviour of ESR processed F-16wt%Al intermetallic alloys, R.G. Baligidad, U. Prakash, V.R. Rao, P.K. Rao and N.B. Ballal, ISIJ International, 36 (1996) 1215.
62. Electroslag crucible melting for recycling of low oxygen high conductivity copper scrap, V.V.S. Prasad, V.R. Rao, U. Prakash, P.K. Rao and K.M. Gupt, ISIJ International, 36 (1996) 1113

63. Effect of carbon content on mechanical properties of electroslag remelted Fe_3Al-based intermetallic alloys, R.G. Baligidad, U. Prakash, V.R. Rao, P.K. Rao and N.B. Ballal, ISIJ International, 36 (1996) 1453.
64. Processing of Fe_3Al-based intermetallic alloys through electroslag remelting, R.G. Baligidad, U. Prakash, V.R. Rao, P.K. Rao and N.B. Ballal, ISIJ International, 36 (1996) 1448.
65. Recycling of superalloy scrap through electroslag remelting, V.V.S. Prasad, A.S. Rao, U. Prakash, V.R. Rao, P.K. Rao and K. M. Gupt, ISIJ International, 36 (1996) 1459.
66. Development of Fe_3Al-based intermetallic alloys by electroslag remelting, R.G. Baligidad, U. Prakash, V.R. Rao, P.K. Rao and N.B. Ballal, ISIJ International, 35 (1995) 443.
67. Electroslag remelting of Fe-28at.%Al intermetallic alloy, R.G. Baligidad, U. Prakash, V.R. Rao, P.K. Rao and N.B. Ballal, Ironmaking and Steelmaking, 21 (1994) 324.
68. Effect of Mo substitution on crystal structure of ordered Fe-Al alloys, U. Prakash, R.A. Buckley and H. Jones, Materials Science and technology, 9 (1993) 16.
69. A comparison of melting/splat quenching and chill block melt spinning for rapid solidification of late transition metal aluminides, U. Prakash, R.A. Buckley, H. Jones and C.M. Sellars, Materials Letters, 14 (1992) 274.
70. The role of antiphase boundary energy in influencing intergranular fracture in ordered Fe-Al-Cr intermetallic alloys, U. Prakash, R. A. Buckley, H. Jones and G.W. Greenwood, Philosophical Magazine Letters, 65 (1992) 129.
71. The effect of composition and heat treatment on fracture of Fe-Al-Cr intermetallic alloys, U. Prakash, R. A. Buckley, H. Jones and G. W. Greenwood, Philosophical Magazine A, 65 (1992) 1407.
72. The DO_{22} to $L1_2$ transition in Intermetallic systems, U. Prakash, R.A. Buckley, H. Jones and C.M. Sellars, Journal of Materials Science, 27 (1992) 2001.
73. The role of elasticity in determining antipase domain boundary anisotropy in ordered intermetallics, U. Prakash, R.A. Buckley, H. Jones and C.M. Sellars, Scripta Metallurgica et Materialia, 25 (1991) 2429.
74. On strain contrast from B2 antiphase domain boundaries in rapidly solidified Fe-32Al-15Mo alloy, U. Prakash, R.A. Buckley, H. Jones and C. M. Sellars, Scripta Metallurgica et Materialia, 25 (1991) 2249.
75. Structure and Properties of ordered intermetallics in the iron aluminium system (Review Article), U. Prakash, R.A. Buckley, H.Jones and C.M. Sellars, ISIJ International, 31 (1991) 1119.
76. Formation of B2 antiphase domains in rapidly solidified Fe-Al-X alloys, U. Prakash, R.A. Buckley and H. Jones, philosophical Magazine A, 64 (1991) 797.
77. Novel faulted structures in rapidly solidified Fe-Al-X alloys, U. Prakash, R.A. Buckley and H. Jones, Acta Metallurgica et Materialia, 39 (1991) 1677.
78. Effect of Mo substitution for Fe on B2 antiphase domain formation in rapidly solidified Fe-Al alloys, U. Prakash, R.A. Buckley and H. Jones, Materials Science and Engineering A, A133 (1991) 588.

2. Papers in Conference Proceedings

79. Deepak Kumar, Ujjwal Prakash, Vikram. V. Dabhade, K. Laha, T. Sakthivel “Influence of yttria on Oxide Dispersion Strengthened (ODS) ferritic steel” in Materials Today: Proceedings 5 (2018) 3909-3913.

80. Sandeep Chauhan, Vikas Verma, Ujjwal Prakash, P.C. Tewari, Dinesh Khanduja, Processing of Cr-Mo Alloy Steel via PM Route, Materials Today: proceedings, Volume 3, Issue 9, Part B, 2016, Pages 2899-2903.
81. Dry sliding wear of Fe-based powder processed through hot powder forging techniques, Materials Today Proceedings, Vol 5 , issue 9, Part 1, (2018) 17170-17179
82. Microstructural and mechanical characteristics of AA2014/SiC surface composite fabricated by friction stir processing, Vipin Sharma, U. Prakash, B.V. Manoj Kumar, Materials Today : Proceedings, Volume 2 (Issue 4-5) (2015) 2666-2670.
83. Creep behaviour of a nickel free austenitic steel, P. Rawat, U. Prakash, D. V. V. Satyanarayana, in ISSS2014: The fourth International Symposium on Steel Science, Dislocations, voids and cracking in steels-How can we bridge deformation and fracture, edited by K. Tsuzaki, T. Ohmura and N. Tsuji, Iron and Steel Institute of Japan, (2014) p. 79
84. Hydrogen effects in iron aluminides containing carbon, U. Prakash, G. Sauthoff, N. Parvathavarthini and R.K. Dayal, in Inorganic Materials: Recent advances p.148, editors D. Bahadur, S. Vitta and O. Prakash, Narosa Publishing House New Delhi, (2004)
85. Electroslag remelting of Fe_3Al alloys, R.G. Baligidad, U. Prakash, A. Radhakrishna, V.R. Rao, P.K. Rao and N.B. Ballal in Nickel and iron aluminides: Processing and Properties: edited by S.c. Deevi, V.K. Sikka, P.J. Maziasz and R.W. Cahn, American Society of Metals, Ohio, USA, (1997) p177..
86. Effect of Mo substitution on ordered Fe-Al alloys, U. Prakash, R.A. Buckley and H. Jones in High Temperature Intermetallics, Institute of Metals, London, p181, (1991)
87. Mechanical Properties of Fe-Al-X alloys, U. Prakash, R.A. Buckley and H. Jones in High Temperature Ordered Intermetallic alloys IV, Materials Research Society Symposium Proceedings, Vol. 213, p581 (1991).

3. Reports

The following reports were supported by DRDO New Delhi

88. Effect of heat treatment on structure and properties of P/M EIP 698P superalloy processed by Hot Isostatic Pressing, U. Prakash, P. Prasadachary, D.V.V Satyanarayana and M. Kumar, DMRL Technical Report No. TR 2006 402 (2006).
89. Effect of process variables on foaming characteristics of Al-based foams processed through P/M route, U. prakash, P. Prasadachary, T. Raghu, M. Sudhakar Rao, V.V. Bhanu Prasad and K..S. Raju, DMRL Technical Report No.TR 2005 375 (2005).
90. Structure and Properties of P/M EIP 698P superalloy processed by Hot Isostatic Pressing, U. Prakash, P. Prasadachary and M. Kumar, DMRL Technical Report No. TR 2004 355 (2004).
91. Design and Development of a unit for Spray Forming of aluminium based metal matrix composites, U. Prakash, P. Prasadachary and M. Kumar, DMRL technical Report No. 2004 356 (2004).
92. Design and Development of an unit for Spray Forming of Al alloys, U. Prakash, P. Prasadachary, T. Sudhakar and K. Pandari, DMRL Technical Report No. 99261 (1999)
93. P/M processing of dispersion strengthened aluminium alloys for elevated temperature applications, U. Prakash, T. Raghu, A. Gokhale, T.Sudhakar and P. Prasadachary, DMRL Technical Report No. 98329 (1998).

94. Development of iron aluminides based on Fe_3Al by ingot metallurgy route, R.G. Baligidad, A. Radhakrishna, U. Prakash, T. Suresh Bapuji, Y. Satish Babu and M. Chandrashekhar, DMRL Technical Report No. 98239 (1998).
95. Project closing report for DMR-187. **Served as Project Leader**. Project Title: Development of advanced high temperature aluminium alloys by rapid solidification processing, U. Prakash, T. Raghu, A. Gokhale, T. Sudhakar, Prasadachary and K. Pandari (1997)
96. Project closing Report for DMR-212. Project Title: Development of Intermetallic alloys based on Fe_3Al through electroslag remelting, R.G. Baligidad, A. Radhakrishna and U. Prakash (1997).
97. Recycling of superalloy scrap through electroslag remelting using nonconsumable electrode, V.V.S. Prasad, A.S. Rao, U. Prakash and R.G. Baligidad, DMRL Report No. 97219 (1997).

Book Chapter

Challenges in Fabrication of surface composites by friction stir processing, Vipin Sharma, U. Prakash, B.V. Manoj Kumar' in Advanced Composites for Aerospace, Marine and Land Applications II, (eds. T. Sano and T. S. Srivatsan) TMS, John Wiley & Co, (2015) pp 93-100.

Patents:

1. An air induction melting process for preparation of intermetallic alloy, R. G. Baligidad, U. Prakash and A. Radhakrishna, Indian Patent No. 242438, 2010

2. A process for powder forging of metals/alloys for obtaining full density products, U. Prakash and V. V. Dabhade, Indian Patent filed October 2015, Patent application no. 3270/DEL/2015 dt. 12.10.2015