

RESUME

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Professor, Staff No.30

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ADMINISTRATIVE EXPERIENCE & ACHIEVEMENTS

1. Chairman – Standing Committee of Anna University Trichy-24. Since January'2012.

2. Head of department of Production Engineering, National Institute of Technology(N.I.T),Trichy from February 2002 to November 2002.

3.Scopus International Rankings.

a) Sheet Metal Forming Rank	-	3
b) Formability Rank	-	3.
c) Wrinkling Behaviour of Sheet metals Rank	-	1
d) Forming Limit Diagram of Sheet metals Rank	-	1
e) Fracture Limit Diagram of Sheet metals Rank	-	1
f) Workability Rank	-	6
g) Strain Hardening Rank	-	3
h) Forging Rank	-	6
i) Upset Forging Rank	-	1

ACHIEVEMENTS

I. (a) AWARDS RECEIVED :

- a) Best Tamil Nadu Scientist Award – 2008 by the Tamil Nadu State Council for Science and Technology (TNSCST), Directorate of Technical Education Campus, Chennai - 25.
- b) Best teacher award – 2007. National Institute of Technology, Tiruchirappalli – 15.

I . (b) GOVERNMENT OF INDIA / CANADA AND OTHER PROJECTS COMPLETED :

- a) Wrinkling Behaviour of different steels sheet metals when Deep Drawing through conical and Tractrix dies- Research project sponsored by Natural Sciences and Engineering Research council of CANADA, Government of Canada, 1981-83,amount USD 5000.00.

- b) Cold Extrusion of Bearing Races using AISI 5120 steel – Central Metal Forming Institute, HMT Ltd., Hyderabad, Government of India Undertaking, Co-ordinator, 1983-86, amount INR 10.00 Lakhs.
- c) Establishment of Metal Forming Laboratory – Rs.18.00 Lakhs, Government of India, Co-ordinator, 1988-1990.
- d) Formability of Ultra light weight sheet metals – Government of India, Fund Rs.5.00 Lakhs, Co-ordinator, 1988-1991.
- e) Wrinkling behaviour of various stainless steel grades of sheet metals – U.G.C. Project, Govt. of India, Rs.5.00 Lakhs, Co-ordinator, 1994-1996.
- f) Hot forging of different P/M steels using different dies, 1996, U.G.C. Project, Govt. of India, Fund Rs.6.00 Lakhs, Co-ordinator.
- g) FLD(Forming Limit Diagram) and Wrinkling behavior of IF steels sheet metals, FORD India Limited, Chennai, India, Co-ordinator, 2003.
- h) FLD(Forming Limit Diagram) and Wrinkling behavior of different automobile steels sheet metals, TATA IRON AND STEEL COMPANY, Jamshedpur, India, Fund Rs.13.00 Lakhs Co-ordinator, Completed 2006.
- i) FLD(Forming Limit Diagram) and Wrinkling behavior of different steels sheet metals, Tube Products of India, Chennai, India, Co-ordinator, 2003.
- j) Finite element analysis of P/M metals and alloys during forging, U.G.C. project, Govt. of India, 3.4 Lakhs, Co-ordinator, 2003.
- k) FLD(Forming Limit Diagram) and Wrinkling behavior of different stainless steels sheet metals, SALEM STEEL PLANT, SAIL, Salem, India, Fund Rs.2.00 Lakhs Co-ordinator, Completed 2009.
- l) Synthesis, characterization and mechanical workability behavior of nanocrystalline AA 6061 Al alloy reinforced with Titania nanocomposites prepared by mechanical alloying. With collaboration with Heavy Alloy Penetrator Project (HAPP), Ministry of Defense, Government of India. Co – ordinator, 2011-2015.
- m) FLD(Forming Limit Diagram) and Wrinkling behavior of different stainless steels sheet metals, SALEM STEEL PLANT, SAIL, Salem, India, co-ordinator ongoing project. Since 2011.
- n) Hole expansion test on various steel sheets supplied by TATA Steels, India, Fund Rs 4.00 Lakhs, Co-ordinator.
- o) Formability and fracture analysis of Stainless steel 441 grade and other grades of Stainless steels supplied by M/s. Jindal Steels, Hisar, India.

II. RESEARCH WORKS (funded by NIT, Trichy) COMPLETED :

- a) Nanocomposites and its workability.
- b) Powder Metallurgy composites and its workability.
- c) Natural fiber composites and its studies.
- d) Workability behavior of Aluminum and Magnesium alloys and composites.
- e) Friction Welding behavior of Magnesium alloys and composites.
- f) Wear studies on Aluminum and Magnesium alloys and composites.
- g) Forming limit diagrams for aluminum and its alloys - sheet metals.
- h) Cryorolling and formability studies on aluminum and its alloys.

- i) Bending analysis of IF steel grades sheet metals.
- j) Shrink Flanging of sheet metals.
- k) Stretch flanging of sheet metals.
- l) Cold extrusion of aluminum and copper alloys.
- m) Diffusion welding of various metals and alloys.
- n) Optimization of blank layout for blanking operation.
- o) Expert system for cold extrusion of metals.
- p) Curve fitting of stress-strain data using computer software.
- q) Processing of Strain Data using optimization algorithm (CAD).
- r) Computer aided design of progressive die for sheet metal blanking.
- s) Drawability of all grades of Low Nickel Grades Stainless Steels and other sheets.
- t) Drawability of various automobile grades of steel sheet metals.
- u) Forging of P/M composite materials.
- v) Cold forging of all ductile metals.
- w) Yield behaviour for Powder metallurgy components.
- x) Study of barreling aspects during forging.
- y) Deep drawing of cups with radial pressure.
- z) Ductile fracture criteria.
- aa) Grain growth in low carbon steels.
- bb) Processing of Al, Ti and Boron killed EDD quality steels.
- cc) Theoretical analysis of wrinkling.
- dd) Theoretical analysis of Tube bending and wrinkling.

III. PRESCRIBED RESEARCH – COURSES UNDERGONE :

(At McMaster University, CANADA, 1981-1983)

- a) Finite Element analysis (Computer Aided Design course)
- b) Theory of Plasticity
- c) Theory of Elasticity
- d) Manufacturing Processes
- e) Fracture Mechanics and Mechanism
- f) Dislocation theory

In all above higher order (Ph.D.) level courses, weekly assignment problems solved were submitted for valuation in addition to term project (solved using Computer as tool).

IV. RESEARCH PUBLICATIONS AND BOOKS

- a) Author of more than **242** (two hundred and forty two) publications in International Journals.
(Please refer the enclosed list).
- b) Number of publications in International Journals in scopus: **213**.
- c) Number of publications in Indian and International Conferences: **80**.
- d) Number of publications in National Journals: **50**.
- e) Number of publications in National Conferences: **60**.

- f) Author of 4 books namely “**Metal Forming Technology**”, “**Theory of Plasticity**” and “**Extrusion Technology**” (Ahuja Book Publisher, 2001, New Delhi). Fourth book is on **Mechanical behavior of materials** (Pearson International, U.S.A. 2013.)
- g) Two national level conferences namely **Metal Forming and Powder Metallurgy** were organized.

V. LIST OF ISTE / OTHER COURSES ATTENDED:

- a) Computer Graphics, November 1996.
- b) Advance welding processes and Q.C., July 1991.
- c) Advance welding science and technology, May 1988.
- d) Alloy steels, Dec. 1986.
- e) Effective speaking, conducted by Indo – American Society, Madras, June 1978.
- f) Professional Development Course – Conducted by TTTI, Madras, June – July, 1990.
- g) Recent trends in modeling of Manufacturing Systems, 2002.
- h) Emerging Trends in CAD/CAM – Theory and Practice, conducted by NIT, Trichy, Dec. 2004.
- i) Industry Institute Partnership conducted by REC, Trichy, March. 1997.
- j) Performance Appraisal and Development System conducted by REC, Trichy, Jan. 1997.
- k) Joining of Materials conducted by IISC, Bangalore, December 2010.
- l) Characterization of Materials by NIT, Trichy, November 2009.

VI. INDUSTRIAL AND TEACHING EXPERIENCE:

- a) Working as Professor since 2004 at NIT, Tiruchirappalli.
- b) Worked as Assistant Professor since 1996 – 2004 at NIT, Tiruchirappalli.
- c) Worked as Lecturer, since 1986 at NIT, Tiruchirappalli.
- d) Worked as Engineer (Research), Central Metal Forming Institute, HMT Limited, Hyderabad, from 1983 - 1986.
- e) Worked as Teaching Assistant, McMaster University, Ontario, **CANADA**, 1981-1983.
- f) Worked as Asst. Supdt., (R&D), Tube Products of India, Avadi, Madras, 1979-1981.
- g) Worked as Trainee, Forge Division, H.A.L., Bangalore, 1978 (6 weeks).
- h) Undergone In-plant training, P.S.G. Foundry, Coimbatore, 1974-1977, weekly 6
- i) hours.
(Put up more than 36 years of Industrial and Teaching experience after M.Tech. degree).

VII. Ph.D. CANDIDATES GUIDED BY Dr. R.NARAYANASAMY:

- a) Wrinkling behaviour of various Low Nickel Grades Stainless Steels – by Dr. V. Pakkirisamy – awarded 2001.
- b) Barrelling behaviour of some metals during upsetting – by Dr. S. Sathiyarayan – awarded 2001.

- c) Theoretical aspects of forging of powder metallurgy components and sheet metal forming – by Mr. K.R. Subramaniam, awarded, 2003.
- d) CAD/CAM extrusion – Upper bound solution, by Mr.P.Srinivasan, awarded, 2004.
- e) Some theoretical aspects on deep drawing of sheet metals – by Mr.S.Raghuraman, awarded, 2004.
- f) Barrelling behaviour of some non ferrous metals during cold forging – by Mr. S. Malayappan, awarded, 2005.
- g) Barrelling aspects during cold forging of truncated cone solids – by Mr.Syed Abu, awarded, 2004.
- h) Advances in CAD/CAM extrusion – Upper bound solution – by Mr. S. Venkatesan, awarded, 2005.
- i) Cold forging of non axi-symmetric cylinders – by Mr. K.Manisekar, awarded, 2005.
- j) Cold forging of Aluminium – Iron composites – by Mr. N. Selvakumar, awarded, 2005.
- k) Wrinkling behavior of different grades of Aluminum sheets – by Mr. C. Loganathan, awarded, 2005
- l) Formability analysis and its evaluation of sheet metals of various Indian steel grades – by C.Sathiya Narayanan, awarded, 2008.
- m) Workability of some powder metallurgy composites during cold upsetting – by T. Ramesh, awarded, 2006.
- n) Workability studies on powder metallurgy pure iron and iron – titanium carbide composite steels – V.Senthilkumar , awarded,2007.
- o) Some studies on forging behavior of elliptical shaped billets during cold upsetting – K.Baskaran, awarded, 2008.
- p) Forming and fracture behavior of some aluminium and its alloy sheets at room temperature – M.Ravichandran, awarded, 2008
- q) Wrinkling behavior of some aluminium alloy sheet metal when drawn through conical and tractrix dies – J.Satheesh, Awarded 2009
- r) Pore closure and workability on Powder Metallurgy of Carbon Steels – V.Anandakrishnan, Awarded, 2010
- s) Air bending of I.F steels sheet metals – P.Padmanabhan, Awarded, 2009
- t) Workability and Pore closure behavior on powder metallurgy of Al-SiC metal matrix composite – M. Prabhakar, Awarded, 2010
- u) Mathematical analysis on Formability of sheet metals - N.V. Anbarasi – Awarded, 2010
- v) Study on synthesis, characterization and workability behavior of nanocrystalline AA 6061 alloy reinforced with TiO₂ composite – S.Sivasankaran, Awarded, 2011.
- w) Studies on mechanical behaviors of filler added coir polyester composites – S.Sathiyamurthy, Awarded, 2012.

- x) Formability, Void Coalescence and Texture analysis of cryorolled aluminum alloys- K.Chandrasekhar, Awarded, 2015.
- y) Effect of various reinforcements on synthesis, Characterization, Workability and dry sliding wear behavior of AA 6061nanocomposites prepared by mechanical alloying- D.Jeyasimman, Awarded, 2015.
- z) Cryorolling and Formability of sheet metals of Al alloy and SS 304 grades, ongoing, S.Vigneshwaran, Since 2015.

VIII. FELLOWSHIP AND OTHER AWARDS:

- a) Awarded Government of India stipend for M.Tech programme at IIT, Madras, 1977-79.
- b) Awarded McMaster University fellowship for M.Engg, (Research), Programme in **CANADA**, 1981 – 1983.
- c) Post Doctoral Fellowship, McMaster University, Ontario, **CANADA**, 2001.
- d) Awarded Post Doctoral fellowship from IGCAR, Kalpakkam, Tamil Nadu, 2006.
- e) Best Tamil Nadu Scientist Award – 2008 by The Tamil Nadu State Council for Science and Technology (TNSCST), Government of Tamil Nadu, Chennai - 25.
- f) Best teacher award – 2007. National Institute of Technology, Tiruchirappalli – 15.
- g) Life time achievement award – 2015 by Indian Society for Technical Education (ISTE).

IX. SUBJECTS HANDLED:

- a) Theory of Plasticity.
- b) Mechanics of Metal Forming.
- c) Sheet Metal Technology.
- d) Metal Forming technology.
- e) Mechanical behavior of metals.
- f) Materials Technology
- g) Foundry Technology.
- h) Welding Technology.
- i) Tool Engineering Design.
- j) Engineering Drawing.
- k) Machine Design Drawing.
- l) Value Engineering.
- m) Computer aided design and Manufacturing.
- n) Design for Manufacture and Assembly.

X. MEMBERSHIP IN PROFESSIONAL BODIES

- a) Life member in Indian Society for Technical Education (ISTE).
- b) Life member in Welding Society of India (WSI).

- c) **Fellow** member in Indian Institute of Metals (IIM).
- d) Life member in Powder Metallurgy Association of India(PMAI).
- e) **Fellow** member in Institution of Engineers (India).

XI. EDUCATIONAL QUALIFICATIONS:

a)	B.E. Degree (1972-77) Metallurgical Engineering.	Obtained First Class, secured Third Rank , PSG College of Technology, Madras University , Studied Metallurgical Engineering . Foundry Technology as Elective.
b)	M.Tech. Degree (1977-79) Metallurgy	Obtained First Class, secured Second Rank , IIT, Madras , Studied Metal Forming subjects and other Material processing technology subjects.
c)	M.Engg. (Research) (1981-1983)	Obtained 85% marks, Degree from McMaster University, Ontario, CANADA (one of the best university in North America), studied Material processing technology subjects.
	Project	Wrinkling behavior of various grades of sheet metals
d)	Ph.D. (Research) Production Engineering. (1989-92)	Awarded degree in September 1993 from Bharathidasan University , Tiruchirappalli, Tamil Nadu.
	Title of thesis	Drawing behavior of sheet metals through Conical and Tractrix dies
e)	D.Sc., (Research) Production Engineering (1993-2001) – results awaited	Upsetting of Powder Metallurgy forging – thesis submitted, Dec, 2001, Bharathidasan University , Tiruchirappalli, Tamil Nadu.
g)	Post –Doctoral (Research) N.I.T., Tiruchirappalli (1993-2015)	Sheet Metal Forming, CAD/CAM Extrusion, FEM Applications, Hot and Cold Forging of Powder Metallurgy. Nanocomposites, Diffusion welding, Wear mechanism, Workability studies.

LIST OF PUBLICATION

INTERNATIONAL JOURNALS

(ELSEVIER -- Science Direct)

1. **Effect of temperature and strain rate on compressive response of extruded Magnesium nanocomposite**, B.Selvam, P.Marimuthu, R.Narayanasamy, V.Senthil Kumar, K.S. Tun, M.Gupta, *Journal of Magnesium and Alloys*, Article in press, August 2015.
2. **Role of hybrid reinforcement on microstructural observation, characterization and consolidation behavior of AA 6061 nanocomposite**, D. Jeyasimman, R. Narayanasamy, R. Ponlagusamy, *Advanced Powder Technology*, Volume 26, Issue 4, July 2015, Pages 1171-1182.
3. **Effect of cryorolling on the mechanical properties of AA 5083 alloy and the portevin–le chatelier phenomenon** . *Materials & Design*, Volume 67, 15 February 2015, Pages 107-117. K.S.V.B.R. Krishna, K. Chandra Sekhar, R. Tejas, N. Naga Krishna, K. Sivaprasad, R. Narayanasamy, K. Venkateswarlu
4. **The effects of various reinforcements on dry sliding wear behaviour of AA 6061 nanocomposites** *materials & design*, volume 64, december 2014, pages 783-793 D. Jeyasimman, R. Narayanasamy, R. Ponlagusamy, V. Anandakrishnan, M. Kamaraj.
5. **Micro structural observation, consolidation and mechanical behaviour of AA 6061 nanocomposites reinforced by γ -Al₂O₃ nanoparticles**. *Advanced Powder Technology*, Volume 26, Issue 1, January 2015, Pages 139-148 D. Jeyasimman, K. Sivaprasad, S. Sivasankaran, R. Ponlagusamy, R. Narayanasamy, Vijayakumar Iyer
6. **Effect of cryorolling on the mechanical properties of aa5083 alloy and the portevin–le chatelier phenomenon**. *Materials & Design*, Volume 67, 15 February 2015, Pages 107-117. K.S.V.B.R. Krishna, K. Chandra Sekhar, R. Tejas, N. Naga Krishna, K. Sivaprasad, R. Narayanasamy, K. Venkateswarlu
7. **Synthesis of electric discharge alloyed nickel–tungsten coating on tool steel and its tribological studies**. *Materials & Design*, Volume 63, November 2014, Pages 257-262. Ilangovan Arun, Muthukannan Duraiselvam, V. Senthilkumar, R. Narayanasamy, V. Anandakrishnan
8. **Formability, fracture and void coalescence analysis of a cryorolled al–mg–si alloy** *Materials & Design*, Volume 57, May 2014, Pages 351-359. K. Chandra Sekhar, R. Narayanasamy, K. Venkateswarlu.
9. **Experimental investigations on microstructure and formability of cryorolled aa 5052 sheets**. *Materials & Design*, Volume 53, January 2014, Pages 1064-1070. K. Chandra Sekhar, R. Narayanasamy, K. Velmanirajan.
10. **Dry sliding wear behaviour of zinc oxide reinforced magnesium matrix nano-composites**. *Materials & Design*, Volume 58, June 2014, Pages 475-481. B. Selvam, P. Marimuthu, R.Narayanasamy, V. Anandakrishnan, K.S. Tun, M. Gupta, M. Kamaraj
11. **Experimental investigation of forming limit, void coalescence and crystallographic textures of aluminum alloy 8011 sheet annealed at various temperatures**. *Archives of Civil*

and Mechanical Engineering, Volume 14, Issue 3, May 2014, Pages 398-416 K. Velmanirajan, K. Anuradha, A. Syed Abu Thaheer, R. Narayanasamy, R. Madhavan, Satyam Suwas.

12. **An investigation of the synthesis, consolidation and mechanical behaviour of Al 6061 nanocomposites reinforced by TiC via mechanical alloying.** *Materials & Design*, Volume 57, May 2014, Pages 394-40 D. Jeyasimman, S. Sivasankaran, K. Sivaprasad, R. Narayanasamy, R.S. Kambali.
13. **Fabrication and consolidation behavior of Al 6061 nanocomposite powders reinforced by multi-walled carbon nanotubes.** *Powder Technology*, Volume 258, May 2014, Pages 189-197. D. Jeyasimman, K. Sivaprasad, S. Sivasankaran, R. Narayanasamy
14. **Statistical evaluation of forming limit diagram for annealed al 1350 alloy sheets using first order reliability method.** *Applied Mathematical Modeling*, Volume 38, Issue 1, 1 January 2014, Pages 145-167 K. Velmanirajan, K. Anuradha, A. Syed Abu Thaheer, R. Ponalagusamy, R. Narayanasamy
15. **Experimental investigations on microstructure and formability of cryorolled AA 5052 sheets.** *Materials & Design*, Volume 53, January 2014, Pages 1064-1070 K. Chandra Sekhar, R. Narayanasamy, K. Velmanirajan
16. **Forming limit diagram and void coalescence analysis of AA 5052 coated with molybdenum-based ceramic nanocomposites.** *Materials & Design*, Volume 52, December 2013, Pages 393-403 N. Selvakumar, M. Jinnah Sheik Mohamed, R. Narayanasamy, K. Venkateswarlu
17. **Study on the wrinkling of bulged AA 5052 alloy sheet metal during restoration.** *Materials & Design*, Volume 52, December 2013, Pages 541-546 P.R. Jeyakrishnan, Kn.K.S.K. Chockalingam, R. Narayanasamy, K. Venkateswarlu
18. **Numerical modelling, prediction of Cu–W nano powder composite in dry sliding wear condition using response surface methodology** *Materials & Design*, Volume 50, September 2013, Pages 977-996 S.C. Vettivel, N. Selvakumar, R. Narayanasamy, N. Leema
19. **Experimental investigation on workability and strain hardening behaviour of Fe–C–Mn sintered composites with different percentage of carbon and manganese content.** *Materials & Design*, Volume 49, August 2013, Pages 791-801 A.P. Mohan Raj, N. Selvakumar, R. Narayanasamy, C. Kailasanathan
20. **Study on hot deformation behavior and microstructure evolution of cast-extruded AZ31B magnesium alloy and nano composite using processing map,** *Materials & Design*, Volume 47, May 2013, Pages 449-455, M. Srinivasan, C. Loganathan, R. Narayanasamy, V. Senthilkumar, Q.B. Nguyen, M. Gupta

21. **Tribological behaviour of powder metallurgy-processed aluminium hybrid composites with the addition of graphite solid lubricant** *Ceramics International*, Volume 39, Issue 2, March 2013, Pages 1169-1182 P. Ravindran, K. Manisekar, R. Narayanasamy, P. Narayanasamy
22. **Numerical modelling of aluminium sheets formability using response surface methodology** *Materials & Design*, Volume 41, October 2012, Pages 239-254 K. Velmanirajan, A. Syed Abu Thaheer, R. Narayanasamy, C. Ahamed Basha
23. **Workability studies on sintered Cu–10SiC preforms during cold axial upsetting** *Materials & Design*, Volume 39, August 2012, Pages 1-8 M. Sumathi, N. Selvakumar, R. Narayanasamy
24. **Application of factorial techniques to study the wear of Al hybrid composites with graphite addition** *Materials & Design*, Volume 39, August 2012, Pages 42-54 P. Ravindran, K. Manisekar, P. Narayanasamy, N. Selvakumar, R. Narayanasamy
25. **Experimental Investigation on Workability and Strain Hardening Behaviour of Fe-C-0.5Mn Sintered Composites** *Materials & Design*, Volume 41, October 2012, Pages 349-357 N. Selvakumar, A.P. Mohan Raj, R. Narayanasamy
26. **Analysis of hot deformation behavior of Al 5083–TiC nanocomposite using constitutive and dynamic material models** *Materials & Design*, Volume 37, May 2012, Pages 102-110 V. Senthilkumar, A. Balaji, R. Narayanasamy.
27. **Influence of fibre treatments on mechanical properties of short *Sansevieria cylindrica*/polyester composites** *Materials & Design*, Volume 37, May 2012, Pages 111-121 V.S. Sreenivasan, D. Ravindran, V. Manikandan, R. Narayanasamy
28. **Effect of phase transformation and intermetallic compounds on the microstructure and tensile strength properties of diffusion-bonded joints between Ti–6Al–4V and AISI 304L** *Materials & Design*, Volume 36, April 2012, Pages 714-727 T. Vigraman, D. Ravindran, R. Narayanasamy
29. **Microstructure and mechanical property evaluation of diffusion-bonded joints made between SAE 2205 steel and AISI 1035 steel** *Materials & Design*, Volume 35, March 2012, Pages 156-169 T. Vigraman, R. Narayanasamy, D. Ravindran
30. **Effect of Glass and SiC in Aluminum matrix on workability and strain hardening behavior of powder metallurgy hybrid composites** *Materials & Design*, Volume 34, February 2012, Pages 120-136 D.R. Kumar, R. Narayanasamy, C. Loganathan.
31. **Diffusion bonding of AISI 304L steel to low-carbon steel with AISI 304L steel interlayer** *Materials & Design*, Volume 34, February 2012, Pages 594-602 T. Vigraman, D. Ravindran, R. Narayanasamy

32. **Some studies on sintered cold deformed plain carbon alloy steels**
Materials & Design, Volume 33, January 2012, Pages 115-120A. Rajeshkannan, K.S. Pandey, S. Shanmugam, R. Narayanasamy, S. Narayan
33. **Sliding wear behaviour of AZ31B magnesium alloy and nano-composite**
Transactions of Nonferrous Metals Society of China, Volume 22, Issue 1, January 2012, Pages 60-65 M. Srinivasan, C. Loganathan, M. Kamaraj, Q.B. Nguyen, M. Gupta, R. Narayanasamy
34. **Microstructure, cold workability and strain hardening behavior of trimodaled AA 6061–TiO₂ nanocomposite prepared by mechanical alloying**
Original Research Article Materials Science and Engineering: A, Volume 528, Issues 22–23, 25 August 2011, Pages 6776-6787 S. Sivasankaran, K. Sivaprasad, R. Narayanasamy
35. **X-ray peak broadening analysis of AA 6061_{100-x-x} wt.% Al₂O₃ nanocomposite prepared by mechanical alloying**
Original Research Article Materials Characterization, Volume 62, Issue 7, July 2011, Pages 661-672
 S. Sivasankaran, K. Sivaprasad, R. Narayanasamy, P.V. Satyanarayana
36. **Evaluation of compaction equations and prediction using adaptive neuro-fuzzy inference system on compressibility behavior of AA 6061_{100-x-x} wt.% TiO₂ nanocomposites prepared by mechanical alloying**
Powder Technology, Volume 209, Issues 1–3, 15 May 2011, Pages 124-137 S. Sivasankaran, K. Sivaprasad, R. Narayanasamy, Vijay Kumar Iyer
37. **Effect of glass in aluminum matrix on workability and strain hardening behavior of powder metallurgy composite**
Materials & Design, Volume 32, Issue 4, April 2011, Pages 2413-2422 D.R. Kumar, C. Loganathan, R. Narayanasamy
38. **Mechanical properties of randomly oriented short *Sansevieria cylindrica* fibre/polyester composites**
Materials & Design, Volume 32, Issue 4, April 2011, Pages 2444-2455
 V.S. Sreenivasan, D. Ravindran, V. Manikandan, R. Narayanasamy
39. **Feasibility of joining AZ31B magnesium metal matrix composite by friction welding**
Materials & Design, Volume 32, Issue 3, March 2011, Pages 1672-1676
 M. Srinivasan, C. Loganathan, V. Balasubramanian, Q.B. Nguyen, M. Gupta, R. Narayanasamy
40. **Microstructural, physico-chemical and mechanical characterisation of *Sansevieria cylindrica* fibres – An exploratory investigation**
Materials & Design, Volume 32, Issue 1, January 2011, Pages 453-461 V.S. Sreenivasan, S. Somasundaram, D. Ravindran, V. Manikandan, R. Narayanasamy
41. **Effect of strengthening mechanisms on cold workability and instantaneous strain hardening behavior during grain refinement of AA 6061-10 wt.% TiO₂ composite prepared by mechanical alloying**
Journal of Alloys and Compounds, Volume 507, Issue 1, 24 September 2010, Pages 236-244 S. Sivasankaran, K. Sivaprasad, R. Narayanasamy, Vijay Kumar Iyer

42. **Studies on void coalescence analysis of nanocrystalline cryorolled commercially pure aluminium formed under different stress conditions** *Materials & Design, Volume 31, Issue 7, August 2010, Pages 3578-3584* N. Naga Krishna, A.K. Akash, K. Sivaprasad, R. Narayanasamy
43. **An investigation on flowability and compressibility of AA 6061_{100-x-x} wt.% TiO₂ micro and nanocomposite powder prepared by blending and mechanical alloying** *Powder Technology, Volume 201, Issue 1, 12 July 2010, Pages 70-82* S. Sivasankaran, K. Sivaprasad, R. Narayanasamy, Vijay Kumar Iyer
44. **Dry sliding wear behaviour of AA 6351-ZrB₂ in situ composite at room temperature** *Materials & Design, Volume 31, Issue 3, March 2010, Pages 1526-1532* G. Naveen Kumar, R. Narayanasamy, S. Natarajan, S.P. Kumaresh Babu, K. Sivaprasad, S. Sivasankaran
45. **Synthesis, structure and sinterability of 6061 AA_{100-x-x} wt.% TiO₂ composites prepared by high-energy ball milling** Original Research Article *Journal of Alloys and Compounds, Volume 491, Issues 1–2, 18 February 2010, Pages 712-721* S. Sivasankaran, K. Sivaprasad, R. Narayanasamy, Vijay Kumar Iyer
46. **Modelling of forming limit diagram of perforated commercial pure aluminium sheets using artificial neural network** Original Research Article *Computational Materials Science, Volume 47, Issue 4, February 2010, Pages 1072-1078* K. Elangovan, C. Sathiya Narayanan, R. Narayanasamy
47. **Analysis of workability behavior of Al–SiC P/M composites using backpropagation neural network model and statistical technique** Original Research Article *Computational Materials Science, Volume 47, Issue 1, November 2009, Pages 46-59* S. Sivasankaran, R. Narayanasamy, T. Ramesh, M. Prabhakar
48. **Modelling of wrinkling in deep drawing of different grades of annealed commercially pure aluminium sheets when drawn through a conical die using artificial neural network** *Materials & Design, Volume 30, Issue 8, September 2009, Pages 3193-3205* S. Sivasankaran, R. Narayanasamy, R. Jeyapaul, C. Loganathan
49. **Effect of molybdenum addition on workability of powder metallurgy steels during cold upsetting** Original Research Article *Materials Science and Engineering: A, Volume 517, Issues 1–2, 20 August 2009, Pages 30-36* R. Narayanasamy, V. Anandakrishnan, K.S. Pandey
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39. Forming Limit Diagram for Stainless Steel Sheet 430 Grade

National conference on Recent Advances in Mechanical Engineering at National Engineering College, Kovilpatti, Tamilnadu, India, January 2004.

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