

(A) R&D with Steel Development Fund (SDF)

Approval of Cabinet Committee of Economic Affairs:

Cabinet Committee of Economic Affairs (CCEA) in 1997-98 decided that investment upto Rs. 150 Crore per annum may be made from the interest proceeds of SDF on R&D in the steel sector. The CCEA also approved the Empowered Committee (EC) mechanism under the Chairmanship of Secretary (Steel) and members comprising Chairman SAIL, CMD MECON, MD Tata Steel, Director IIT Kharagpur, Director IMMT, Director NML and other members, for approval of R&D projects, monitoring of ongoing projects and for overall guidance in the field of R&D in steel industry.

Administrative Setup:

Technical Wing (TW) of the Ministry of Steel works as the Secretariat of the Empowered Committee to scrutinize the research proposals, obtain views of experts and monitor the progress of the projects for reporting to the Empowered Committee etc. In this regard a three tier system is followed viz., 1) preliminary examination by TW, 2) Detailed techno-economical assessment by Evaluation Group consisting of Department of Science & Technology (DST), Department of Scientific & Industrial Research (DSIR) and Industrial Adviser, MOS in consultation with Domain Experts, 3) Final Approval by Empowered Committee Chaired by Secretary (Steel) and Members comprising of Experts. Once a proposal is approved, TW issues sanction letter to JPC Kolkata for release of funds which also monitors the utilization of funds. An Empowered Board of Experts also monitors the progress and fund utilization of each large value project costing more than 1 crore.

Status of R&D under the SDF support:

Under this scheme 68 R&D projects have been approved since inception with total project cost of Rs. 544 with SDF assistance of Rs. 263 crore. Since inception, Rs. 146 crore (approximately) has been disbursed from SDF on completed and ongoing R&D projects. Year-wise release of SDF fund during the last 5 years is given below:

S. No.	Year	Investment (Rs. Crore)
1	2006-07	19.41
2	2007-08	10.12
3	2008-09	7.27
4	2009-10	11.26
5	2010-11	20.65

So far 35 projects have been completed and the results of some of them have been found positive and already implemented in the Industry in improvement in productivity, reduction in energy consumption and pollution etc. A list of R&D projects under this scheme is given below:

List of Completed Projects (SDF)

(In Rs. Crore)

Sl No	Name of the project & Implementing organization	Implementing Agency	Total cost of the project	Approved SDF contribution
1	Energy efficiency improvement in secondary steel sector in India	MECON Ltd., Ranchi. ranchi@mecon.co.in	0.6000	0.6000
2	Chemical modification of lignite based additives and its application in beneficiation of iron ore fines and slimes	RRL, Jorhat director@rrljorhat.res.in , drlljt@csir.res.in	0.1120	0.0920
3	To improve coking characteristics of non coking Chandrapura Coal of Western Coal Field Ltd	IIT, Delhi webmaster@admin.iitd.ac.in & Usha Ispat Limited	0.0800	0.0178
4	Introduction of new mining methods and techniques for grounds control to enable mining of rich Manganese ore under very poor to fair grounds Conditions	National Institute of Rock Mechanics nirm@nirm.in and MOIL	0.4000	0.1600
5	Development of on line expert system for continuous cast products (Billets/Blooms/Slabs)	MECON Ltd. ranchi@mecon.co.in & Modern Steel Limited	0.2800	0.1400
6	To achieve refractory consumption of international bench mark level in integrated steel plants	RDCIS, SAIL, Ranchi sailco@vsnl.com	8.7000	3.3835
7	Simulation of Thermo-mechanical Processing of steels and Hot Workability studies of High strength steels	RDCIS, SAIL, Ranchi sailco@vsnl.com	10.0000	6.3069

8	Development of welding consumables and assessment of weldability index for micro alloyed steels	Jadavpur University, Calcutta vc@admin.jdvu.ac.in & Hyderabad Industries.	0.2059	0.1555
9	Development of Cast & forged microalloyed steel	IIT, Kharagpur deansr@hijli.iitkgp.ernet.in and Kharagpur Metal Industries	0.1546	0.1470
10	To study various tolerable Indian non-coking coal sources with the aim of maximizing the usage of domestic non-coking coal in the COREX process	Jindal Vijayanagar Steel Ltd. corporate.communications@jsw.in	3.3500	0.9440
11	Production of CC Billet/Bloom of quality suitable for single-stage conversion into special Bars	Tata Iron & Steel Co. Ltd. communications@tatasteel.com and RDCIS, SAIL, Ranchi sailco@vsnl.com	71.1000	27.0905
12	Desulphurisation of Assam Coal	IIT, Delhi webmaster@admin.iitd.ac.in	0.0980	0.0463
13	Teaching Package on Structural Steel Design for Department of Civil/Structural Engineering	Institute for Steel Development and Growth (INSDAG), Calcutta contact@steel-insdag.org , IIT, Madras and Anna University, Chennai	0.6960	0.5195
14	Maximisation of blast furnace productivity with Indian iron ore	NML, Jamshedpur director@nmlindia.org Tata Iron & Steel Co. Ltd and RDCIS, SAIL, Ranchi	80.4900	34.7675
15	Utilisation of solid waste materials generated at Steel Plants by physical beneficiation techniques	RRL, Bhubaneswar dir@immt.res.in , TISCO and RDCIS, SAIL, Ranchi	0.1395	0.0845
16	Macromodeling of heat transfer and inclusion management in continuous and ingot casting of steel	IIT, Kharagpur deansr@hijli.iitkgp.ernet.in &	0.1550	0.0759

		Mukand Limited		
17	Design and development of TRIP aided ferrite-bainite steel for structural application	BESU, Shibpur director_rc@becs.ac.in	0.1330	0.0980
18	Cold Briquetting of Iron Oxide	Ispat Metallics India Ltd ispatind@satyam.net.in	1.1000	0.2433
19	Development of ultra high strength steel in as rolled condition through thermo mechanical controlled processing	BESU, Shibpur director_rc@becs.ac.in	0.2550	0.2239
20	Damage assessment and integrity of welded components	Jadavpur University, Kolkata vc@admin.jdvu.ac.in	0.0378	0.0358
21	Mixing and mass transfer in steel making ladles stirred with dual porous plug	IIT, Kanpur doiitk@iitk.ac.in	0.1121	0.1043
22	Setting up of a semi pilot demonstration plant (30kg/Hr capacity) for production of synthetic rutile, pig iron & high pure ferric oxide from east coast ilmenite using thermal plasma technology	NMDC, Hyderabad hois@nmdc.co.in	1.1850	0.4090
23	Development of process for advanced hot dip coated products	RDCIS, SAIL sailco@vsnl.com	8.2380	4.5256
24	Smelting reduction of chromite for ferro chrome/charge chrome making	RRL, Bhubaneswar dir@immt.res.in	3.0000	0.2331
25	Development of Micro Alloyed Steel Structural products in Secondary steel sector through Induction Furnace and Controlled Rolling Route	National Institute of Secondary Steel Technology (NISST) info@nisst.org and All India Induction Furnace Association (AIIFA) info@aiifa.org	0.0600	0.0400
26	Development of intelligent Mill setup model for dynamic and adaptive control of plate mill	RDCIS, SAIL, Ranchi sailco@vsnl.com	26.3100	11.9600
27	Research proposal on Development & Characterization of Spot Welding Techniques for Coated Steel Sheets	Jadavpur University, Kolkata vc@admin.jdvu.ac.in	0.1738	0.1138

28	Extension of project proposal on Documentation and development of iron making process used by Tribals of India	National Metallurgical Laboratory, Jamshedpur director@nmlindia.org	0.1485	0.1485
29	Development of Value added refractory products for Indian bauxite	Central Glass & Ceramic Research Institute director@cgcri.res.in	0.7720	0.1600
30	Development of Coke Dry Cooling Technology (CDCT) for Non-Recovery Coke ovens	MECON Ltd., Ranchi ranchi@mecon.co.in	0.9500	0.4647
31	High Efficiency High Temperature Top Fired Stoves	MECON Ltd., Ranchi ranchi@mecon.co.in	0.3900	0.2569
32	An integrated approach to fatigue behaviour of spot-welded, laser-welded and adhesive bonded high strength steel sheets	Jadavpur University, Kolkata. vc@admin.jdvu.ac.in	1.8315	1.5413
33	Development and Implementation of Slag Detection System for Converter and Castor	MECON Ltd., Ranchi ranchi@mecon.co.in	1.4300	0.9525
34	Development of continuous NO _x monitoring system	MECON Ltd., Ranchi ranchi@mecon.co.in	0.5450	0.4885
35	Study of the requirement of manpower at different levels	IIM, Kolkata dean@iimcal.ac.in	0.1150	0.1150

List of Projects Stopped (by Empowered Committee after mid-course review)

(In Rs. Crore)

Sl No	Name of the project & Implementing organization	Implementing Agency	Total cost of the project	Approved SDF contribution
1	Documentation and development of iron making process used by Tribals of India	NML, Jamshedpur director@nmlindia.org	0.1400	0.0350
2	Improved leak proof design of door in coke oven battery at Rashtriya Ispat Nigam Ltd., Visakhapatnam	MECON Ltd, Ranchi ranchi@mecon.co.in	0.1000	0.05
3	On-line Implementation of Indigenously developed expert system for continuously cast products in billet caster of Modern Steel, Mandi Gobindgarh	MECON Limited ranchi@mecon.co.in	0.7500	0.0700

4	Setting up a Mini Sinter Plant to utilize waste generated out of pig iron produced through Mini Blast Furnace (MBF)	Tata Metalicks, Kharagpur Tel:033 - 66134205	3.7500	0.25
5	Documentation of traditional iron smelting by Agaria community	Bappa Ray Production, New Delhi	0.1400	0.14
6	High Efficiency Copper Stave Coolers : by MECON Ltd	MECON Ltd., Ranchi ranchi@mecon.co.in	0.4700	0.4175
7	Indigenous Development of Mini Pellet Plant of 0.5 Mt/yr for utilization of iron ore ultra fines	MECON Ltd., Ranchi ranchi@mecon.co.in	1.3000	1.04
8	Production of Ferro-Chrome from Chrome Ore Fines and concentrates by solid state reduction in fluidized based reactor with use of natural gas	Facor Alloys Ltd facordelhi@facorgrou p.in	0.3000	0.1500
9	Characterization and utilization of Dolochar from Sponge Iron Industries	RRL, Bhubaneswar dir@immt.res.in & West Bengal Sponge Iron Manufacturers Association (WBSIMA)	0.1026	0.0513

List of Projects on progress (SDF)

(In Rs. Crore)

Sl No	Name of the project & Implementing organization	Implementing Agency	Total cost of the project	Approved SDF contribution
1	Pilot Scale Smelting and pre feasibility Studies on Nickel-Chromium-Cobalt bearing Magnetite ores for commercial production	Govt. of Nagaland & NML, Jamshedpur director@nmlindia.org	0.8811	0.3111
2	Modelling and control of microstructure & mechanism properties during hot strip rolling	RDCIS sailco@vsnl.com , IIT Kanpur & IISC Bangalore	3.6840	1.0000
3	To set up a Steel Research & Development Mission (SRDM)		65.0000	65.0000

4	Secondary Steel Making and Vacuum Automation Reckoner (SVAR)	Kalyani Carpenter Special Steel Ltd. Mundhwa, Pune Fax :+91-20-26824483	0.7600	0.2140
5	Prevention of Grain Growth in 38 MnS 6 Micro alloyed steel	Kalyani Carpenter Special Steel Ltd. Mundhwa, Pune Fax :+91-20-26824483	0.3700	0.1090
6	Indigenous Development of Models for Dynamic BOF Process automation system at RSP	RDCIS, SAIL, Ranchi sailco@vsnl.com & IIT, Kanpur	7.0507	4.4007
7	Quality Improvement of Low Grade Iron Ore	RDCIS, SAIL, Ranchi sailco@vsnl.com	7.3000	4.1000
8	Development of Integrated treatment process for coke oven effluents	RDCIS, SAIL, Ranchi sailco@vsnl.com	7.1800	3.6400
9	Smelting reduction of manganese ore for manufacture of Ferro-Manganese	RRL, Bhubaneswar dir@immt.res.in	0.4083	0.1152
10	Installation of demonstration plant of Continuous Induction Furnace (CONTIFUR) for production of Iron and Steel using iron ore fines and slimes	Electrotherm (India) Ltd., Ahemdabad ho@electrotherm.com	36.0000	13.7500
11	Reduction of Coke rate using probing and modeling techniques in BF No. 6 and BF No. 7 of Bhilai Steel Plant	RDCIS, SAIL, Ranchi sailco@vsnl.com , Bhilai Steel Plant and NML, Jamshedpur	116.9420	23.2220
12	Develop Procedures for Friction Stir Spot Welding (FSSW) of formable quality, high strength and advance high strength steel sheets and characterize the welding joints	Jadavpur University, Kolkata. vc@admin.jdvu.ac.in	2.0886	1.8801
13	Development of Synthetic Flux through Self Propagating Sintering of LD Sludge	NML, Jamshedpur director@nmlindia.org	0.7445	0.7245
14	Creation of Steel Research Centre	IIT, Kharagpur deansr@hijli.iitkgp.ernet.in	20.2586	16.2069
15	Creation of Chair of Prof and Five Scholarship to undergraduate students of Metallurgy in institutes teaching metallurgy		7.2660	7.2660
16	Processing of Vanadium – bearing Titaniferrous –Magnetite Ores of Eastern India	Jadavpur University, Kolkata. vc@admin.jdvu.ac.in	0.2159	0.2159

17	Investigation of Deformation and Damage Mechanism in Bare and Coated Automotive Steels through In-Situ Scanning Electron Microscope	Jadavpur University, Kolkata. vc@admin.jdvu.ac.in	3.3755	3.2666
18	Process for Direct Reduction of Pig Iron Ore Fines using Thermal Plasma Route	IMMT, Bhubaneswar dir@immt.res.in	0.8887	0.5606
19	Development of Thermo Electrically Cooled /Heated Helmet for Industrial Applications	MECON Ltd ranchi@mecon.co.in	1.3222	1.2000
20	Development of High Strength Low Carbon Multiphase Steels	BESU, Shibpur, Kolkata director_rc@becs.ac.in	6.5320	6.0000
21	A comprehensive water modeling facility for steelmaking process analysis and design	IIT, Kanpur doiitk@iitk.ac.in	0.77896	0.6190
22	To develop welding/joining conditions and evaluate joint performance of sheet/tubes of formable/HS/AHS Steel using different processes	Tata Steel Limited, Jamshedpur communications@tatasteel.com	21.3500	10.6750
23	Development of Continuous Multi Gas Monitor: by	MECON Limited, Ranchi ranchi@mecon.co.in	1.0200	0.5100
24	Infrared Camera Based Ladle Condition Monitoring System	MECON Limited, Ranchi ranchi@mecon.co.in	1.8500	0.9250

Guidelines for submission of Research Proposal for financial support from SDF

The research proposals mainly in the areas of applied research at laboratory scale, pilot plant scale development of iron and steel, ferro alloys and refractory industries will be entertained. Other proposals may be entertained on merits. Industrial units, national research organisations, academic institutions, regional R&D organisations both in public and private sectors can submit the proposal(s) either singly or jointly. Proposals, which will have support from industry or others in the form of funds/services/kind, will be preferred.

The applications as per guidelines may be initially submitted in 8 copies (alongwith a soft copy of the proposal on CD and also on E-mail) to:

Industrial Adviser,
Ministry of Steel,
Udyog Bhawan,
Maulana Azad Road,
New Delhi - 110107
Phone No: 91-11-23061064
Fax No: 91-11-23061064
91-11-23063236
E-mail : iasteel@nic.in

Guiding format for Research proposal seeking full/partial financial support from SDF

1. General:
 - a) Name and address of the industrial firm including telephone, email, fax nos. (Give address of the registered office, head office and local office in Delhi, if any)
 - b) Brief history of the industrial firm including products being made, capacities, related collaborations, achievements, capabilities, etc. (latest annual report and company brochure may be given)
 - c) Is the Research Laboratory recognized by DSIR?
 - d) Details of the manpower available (give separate details of Executive and collaborating agencies, if any)
 - (i) Number of Scientists/Technologists
 - (ii) Number of other staff in R&D Unit
2. Enclose Summary Sheet (not more than 2 pages) covering title, objective, sources of budget, duration, linkages with industry etc.
3. Research proposal details: (Details specific to the proposal may be furnished)
 - (a) Title of the proposal

(b) Details of the proposal including :

- i) Objectives of the research.
- ii) Salient features of existing technology/manufacturing problems and technological gaps
- iii) Details of new or improved technology to be developed
- iv) If up gradation of technology towards process development is envisaged, please indicate likely benefits in terms of either
 - Reduction in Energy consumption
 - Reduction in specific raw material consumption
 - Improvement in productivity
 - Reduction in emissions and control of pollution
 - Increase in waste utilisation
- v) Status of work done in national/international area
- vi) Details of IPR/Patents held
- vii) Status of research/development by the firm or at the collaborating research laboratory, if any, their scope of work and role in the present project.
- viii) Application areas.
- ix) Action plan for implementation of the proposed project including literature survey, patent search, lab-work, pilot plant/prototype development, design and engineering, field trials and pre-production activities etc.
- x) Consultancy arrangements etc. if any, with other consulting engineering organisations/ national laboratories and institutions and assistance from research laboratories/institutions etc.

(c) Techno-economic Assessment :

- i) Please give a comparison of technical parameters and detail of the technology (both in product/process) which is proposed to be implemented as a result of the project, vis-à-vis the international technological trends, in this area.
- ii) Please indicate if a market survey has been undertaken covering demand profile over next 5 years, likely markets/applications domestically and abroad, competing products, reasonable prices, etc. If so, please give highlights of the survey or enclose a copy of the same. If no such

survey has been undertaken, please indicate the above details quoting sources.

4. For R&D Labs/Academic Institutions - Has the project been tied up with a User Industry? If yes, the extent of commitment by industry for making equipments available for trials, manpower and marketing (in case of new products) and financial contribution (if any). This may preferably be backed by a letter from user industry.

5. a) Has this proposal been submitted to any other funding agency in the last 3 years (like DST, TIFAC, DSIR or some financial institution) : If so, what was the outcome and any decision/recommendations or the concerned funding agency: or

b) Is it presently under consideration by any other agency?

6. Financial Outlay and time Schedule;

i) Do you require concessions in import duty as per Custom & Excise Notification No. 50/96-Customs dt. 23.7.1996. Give details.

ii) Financial Outlay

Heads	Share in total cost of the project				
	Total cost of the Project	Industry	Collaborating Agency	Any other Assistance	SDF assistance required
	(1)	(2)	(3)	(4)	(5)
a) Capital Equipment <ul style="list-style-type: none"> • For infrastructural facilities • Testing Equipment 					
b) Pilot Plant/Prototypes					
i)Pilot Plant Equipment(in process industries) or components and sub assemblies for building prototypes (in Engg. Industries) - Indigenous - Imported					

ii) Tools, Jigs, Fixtures, Dies required for prototypes/pilot plant					
iii) Consumables used for prototype or pilot plant -Indigenous -Imported					
iv) Work subcontracted outside					
v) Manpower i. Literature Surveys and lab works, design and engineering/ software ii.Fabrication of prototype/pilot plant					
c) Cost of testing and trials of prototype or pilot plant i) Materials ii) Consumables iii) Manpower iv) Total					
d) R&D/Engineering consultancy for prototype/pilot plant/trials and testing, if any -Indian -Foreign					
e) Travel Cost i) Own Computer ii) Outside experts					
f) Overhead expenses					
g) Any other costs					
Total					

Note :

i) Detailed break-up and justifications for all the above should be given in annexures.

ii) In case collaborating agency(ies) is/are involved, the resource allocation against each of above items should show a break-up of outlay at both executing agency and collaborating agency(ies), as well as respective totals.

iii) Time Schedule

- Activity sequence and time schedule for each activity(bar chart)

- Phasing of expenditure on a three monthly basis
- Stages of activities in the project

Activity	Time in months from commencement of period		Agency
	Start	Finish	
a. Literature Survey & Patent Search			
b. Design and Engineering			
c. Procurement and installation of pilot plant/test equipment etc.			
d. Testing, performance/field trials			
e. Modifications and scaling up, if required			
f. Final report			

7. Bio-data of the Project Coordinators and other personal/experts with Contact details including: Telephone no., Mobile No., emails etc. : Give in Annexure

8. Please indicate steps proposed:

- (a) to ensure timely completion of the project such as setting up of a project execution group, internal monitoring groups etc.
- (b) for technology demonstration and commercialization of the project

Signature of Chief Executive/Director(Technical)/Director(R&I)

Note :

- (a) The above format is only for guidance and individual project proposals may be prepared flexibly taking the points into account.
- (b) The project proposal should be submitted in 8 copies (alongwith soft copy on CD).
- (c) Latest Annual Report/Balance Sheet of the company may be enclosed.
- (d) In case of joint proposals with other agencies, the proposals should be jointly forwarded by executing agencies and collaborating agencies duly signed by Chief Executives/Directors of the respective organisations.

Standard Conditions for R&D Projects to be financed from SDF.

A- General

- a) The research institutions/laboratories/organizations pursuing the R&D project with financial assistance from SDF will be held responsible for non-completion of project or leaving the project mid-way.
- b) The research institutions/laboratories/organizations will not allow the project co-coordinators to leave a project undertaken by him without completing it or without making alternate arrangement in consultation with Ministry of Steel.
- c) Ten copies of the Project Completion Report (PCR) should be sent by the research institutions/laboratories/organization to the Secretariat to the Empowered Committee, Ministry of Steel, (Technical Wing), Government of India, Udyog Bhawan, New Delhi 110011. One copy of the PCR should also be sent to the Secretary, SDF Managing Committee, Joint Plant Committee (JPC), Ispat Niketan, 52/1A, Ballygunge Circular Raod, Kolkata-700 019 within one month of the completion of the project.

B-Financial

- i) Quarterly (end of March, June, September & December) Progress Report on the Research Project should be submitted to the Ministry of Steel, (Technical Wing), Government of India, Udyog Bhavan, New Delhi-110011 and to Secretary, SDF Managing Committee, Joint Plant Committee (JPC), Ispat Niketan, 52/1A, Ballygunge Circular Road, Kolkata-700 019.
- ii) Separate bank account(s) for each project has to be opened by the institute for keeping SDF money of the project. Efforts should be made to earn maximum interest from bank deposit of unutilized money. The interest accrued on unutilized money during implementation of the project will be adjusted with the amount of money to be allocated from SDF.

- iii) The details of expenditure as on last date of each quarter date should be submitted.
- iv) The researcher(s) will keep proper account of the money. In case there is surplus money on completion of the project, the same should be returned to Steel Development Fund (SDF) with interest accrued if any. However, in case the research work could not be undertaken or partly undertaken, unutilized SDF money with interest accrued thereof will be returned by the institution/organization to SDF.
- v) The researcher(s) will provide utilization certificate duly endorsed by the respective Head of organization to the Secretary, SDF Managing Committee, Joint Plant Committee, Kolkata.
- vi) A separate mention may be made in the Balance Sheet of the Company/Organization about the money to be sanctioned from SDF and the auditor(s) of these organization will audit the utilization of the money, as per the rule of the respective organizations.
- vii) Money should normally be spent for the particular end use for which it is sanctioned i.e. expenditure under different heads should not exceed the sanctioned amount. In case, minor adjustment is necessary, permission/concurrence from the Secretariat to the Empowered Committee (EC), Ministry of Steel, (Technical Wing), Govt. of India, Udyog Bhawan, New Delhi 110011 should be obtained.
- viii) The assets including prototype(s) or pilot plant if any, wholly or partly acquired out of SDF money during the course of implementation of the project or any materials including scrap, component etc., generated during the execution of the project or left over at the end of the project shall not be disposed within 10 years of procurement/installation without the written permission of the Ministry of Steel (MOS) Govt. of India, Udyog Bhawan, New Delhi- 110011. However, if and when the assets are sold with the permission of MOS, the money may be paid back to the financiers in proportion of actual amount received from them.
- ix) After the project proposal has been approved by the Empowered Committee (EC) from SDF funding, the executing agency shall not accept new sponsor or obtain funds from agencies other than

those from whom such funding was envisaged in the approved project proposal, except with the prior written permission of Secretariat to the EC, Ministry of Steel, (Technical Wing), Govt. of India, Udyog Bhawan, New Delhi 110011.

- x) Any expenditure incurred for the project by the proposer prior to the sanction shall not be admissible against SDF funding.
- xi) Without specific approval of the Empowered Committee (EC), Ministry of Steel, (Technical Wing), Government of India SDF money will not be utilized for foreign training envisaged, if any, in the research project.

C - Intellectual Property Right (IPR):

- i) The ownership of Patent Right shall lie with the institution/organization and no individual inventor/project coordination will file patent in its own name or assign any rights to any body else to file the Patent.
- ii) The researcher shall not publish or present their new ideas & research results before patenting without specific permission of the Ministry of Steel, (Technical Wing), Udyog Bhawan, New Delhi 110011. For permission for publication/presentation of research results (before patenting), the researcher will apply to Ministry of Steel, (Technical Wing) giving details in the proforma given at H. along with a undertaking duly countersigned by the Head of Deptt./Dean of research/Vice-chancellor/ Director as the case may be stating that matter contained in the publication/presentation does not reveal any data/information which would be detrimental to subsequent filing or granting of patent.
- iii) Ministry of Steel will give permission based on the above undertaking, which may be subject to a review, by the IPR Committee later.
- iv) If the knowledge generated from the research is used in house then no payment is to be made to SDF. If the patent/knowledge is sold by the inventor for commercial use, @ of 20% of the payment received should be ploughed back to SDF.