



**ST. MARTIN'S ENGINEERING COLLEGE**  
**DHULAPALLY, SECUNDERABAD**

# **R & D ACTIVITIES**

**ACADEMIC YEAR 2018-2019**



**St. Martin's Engineering College**  
Dhulapally, Secunderabad

2018-19

**Activity -1**  
**Research and Consultancy Project**



# St.MARTIN'S ENGINEERING COLLEGE

DHULAPALLY, SECUNDERABAD-500 100

## Academic Year: 2018-2019

S. No	Name of the Project/ Endowments, Chairs	Name of the Principal Investigator/Co- investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned ( IN Lakhs)	Duration of the project	Name of the Funding Agency	Type (Government/non- Government)
1	Consulting services for 3rd party quality control of civil work	D.Soundarrajan, M.Venugopal V. Rajesh,B.Bhanu Prasad	CIVIL	2018-19	5	1 YEAR	GHMC	Government.
<b>TOTAL</b>							<b>5</b>	



**St. Martin's Engineering College**  
Dhulapally, Secunderabad

2018-19

# Activity -3

## Publication of Books



**St. Martin's Engineering College**  
Dhulapally, Secunderabad

2018-19

Publication of Books

Sl. No.	Name of the Teacher	Title of the book/chapters published	Year of publication	ISBN number of the proceeding
1	Dr.P. Santosh Kumar Patra	Programming for Problem Solving	2019	978-93-5346-865-1
2	Dr. D.V.Sreekanth	Investigations on Abrasive Jet Machining of Different Materials	2019	978-613-9-99379-6
3	Dr. Rajeev Shrivastava	Electronics	2018	978-93-87739-73-4



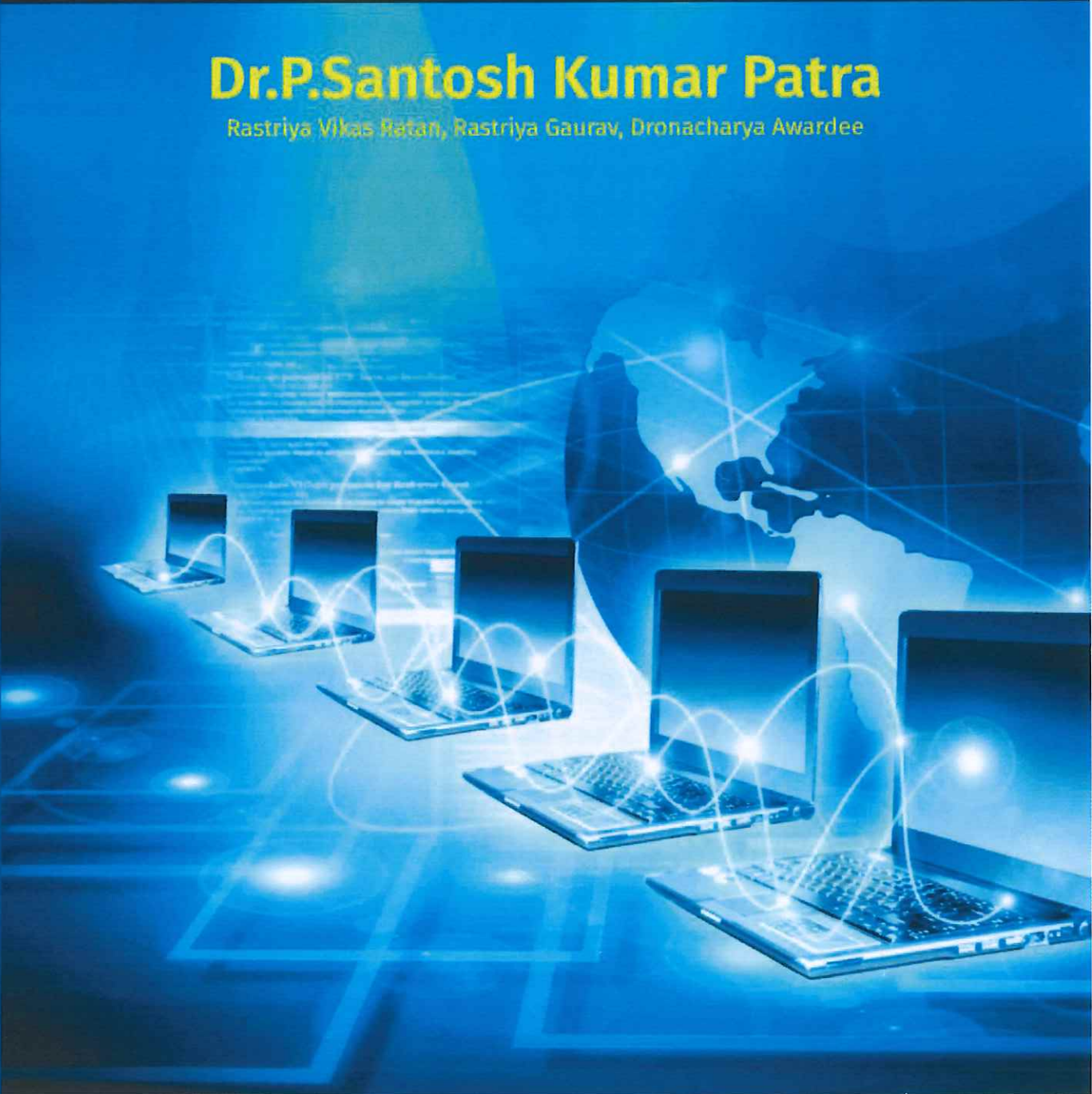
**PROGRAMMING FOR PROBLEM SOLVING**

**Dr.P.Santosh Kumar Patra**

# **PROGRAMMING FOR PROBLEM SOLVING**

**Dr.P.Santosh Kumar Patra**

Rastriya Vikas Ratan, Rastriya Gaurav, Dronacharya Awardee



# **Programming for Problem Solving**

**Dr. P.Santosh Kumar Patra**

**B.E(CSE), M-TECH(CSE), Ph.D(CSE)  
ISTE, CSI, IAENG (Canada), MASPRS(USA), IACSIT, WASET(USA),  
CSTA (USA), SDIWC (USA), SCIEI (Canada), IEDRC (Hong Kong), IRED (USA)**

***Rastriya Vikas Ratan, Rastriya Gaurav, Dronacharya Awardee***

**Principal**

**St Martin's Engineering College  
Dhulapally, Secunderabad, Telangana 500100**

January, 2019

## **Programming for Problem Solving**

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**© Copyright holder -** Dr.P.Santosh Kumar Patra  
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**First Issue -** January 2019

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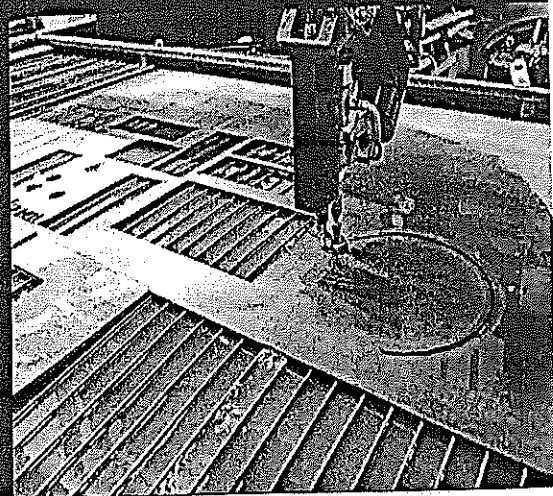
**Price: Rs.480/-**

**ISBN : 978-93-5346-865-1**



Abrasive jet machining is one of the unconventional processes which depend on the concept of mechanical erosion. Abrasive jet machine (AJM) removes material through the action of a focused beam of abrasive-laden gas. Micro-abrasive particles are directed by an inert gas under pressure. When directed at a workpiece, the resulting erosion can be used for cutting, etching, drilling, polishing, and cleaning. This is cost-effective manufacturing of small devices made up of brittle and hard materials. The conventional methods, in spite of recent advancements, are inadequate to machine hard and brittle materials from standpoint of accuracy, precision, and economic production. In this process, the abrasive jet carrying abrasives is directed with adequate pressure on the workpiece. The nozzle is placed at a predetermined optimum distance for obtaining effective material removal rate (MRR).

Dr. D. V. Sreekanth B.E., M.Tech., Ph.D.



Desu Venkata Sreekanth  
M. Sreenivasa Rao

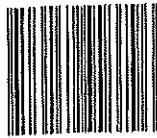


Dr. D.V. Sreekanth completed his doctoral degree from JNTU, Hyderabad and is presently working as Professor and Head of the Department (Mechanical) at St. Martins Engineering College, Hyderabad. He has published more than 50 papers in reputed national, international journals and presented 10 papers in different conferences. He has published a patent.

Venkata Sreekanth, Sreenivasa Rao

## Investigations on Abrasive Jet Machining of Different Materials

Optimization, Nozzle erosion & CFD Analysis



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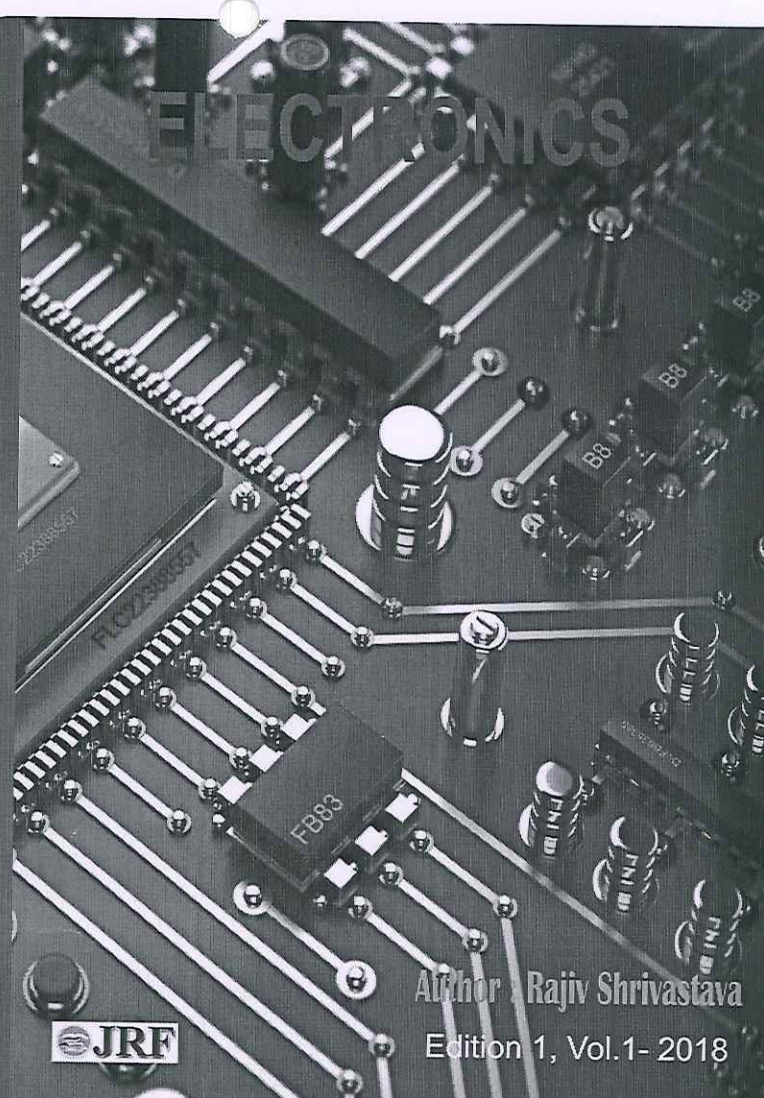
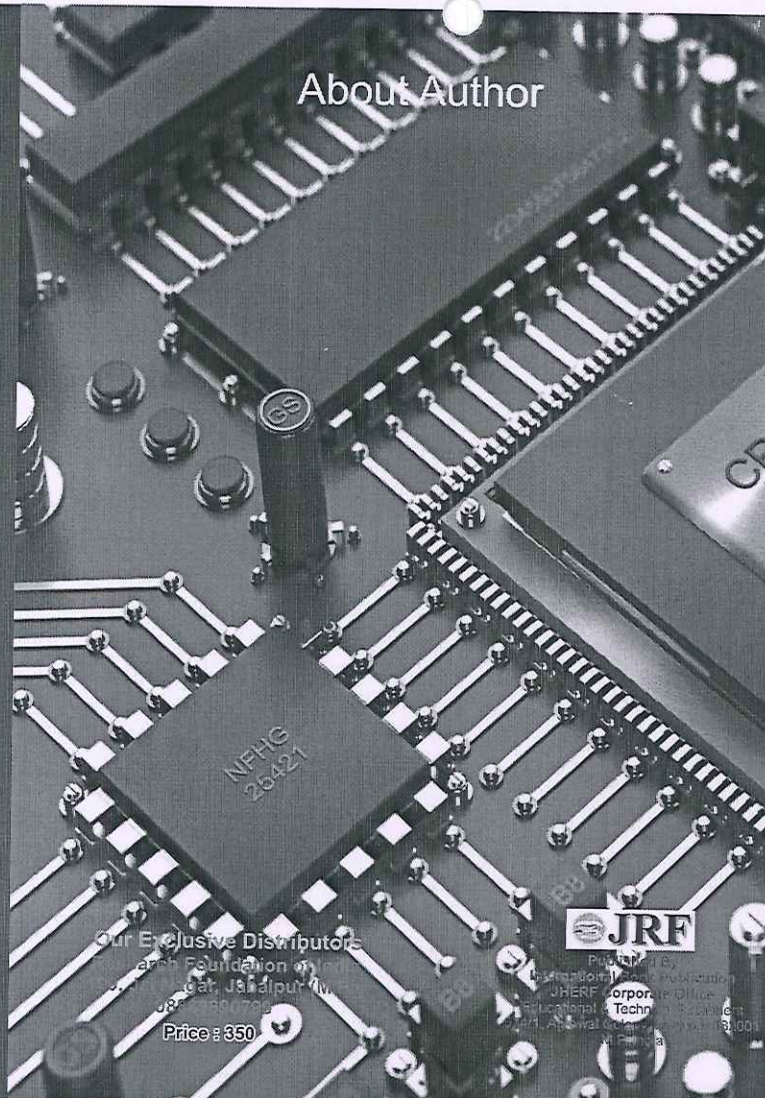
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About Author

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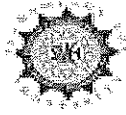


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 Edition 1, Vol.1- 2018



**St. Martin's Engineering College**  
Dhulapally, Secunderabad

2018-19

# Activity -4

## Patents





**St. Martin's Engineering College**  
Dhulapally, Secunderabad

2018-19  
Patents

S.No.	Name of Faculty	Title	Application No.	Year
1	Dr P Santosh Kumar Patra	Intelligent printing system to remove text on paper and reuse paper, ink	E-101/8112/2018 201821025143 5 <sup>th</sup> July, 2018	2018 Published
2	Mr.N. Sainath	Intelligent printing system to remove text on paper and reuse paper, ink	E-101/8112/2018 201821025143 5 <sup>th</sup> July, 2018	2018 Published
3	Dr P Santosh Kumar Patra	Accept the biometric input and complete all banking process	E-101/8114/2018 201821025145 5 <sup>th</sup> July, 2018	2018 Published
4	Mr.N. Sainath	Accept the biometric input and complete all banking process	E-101/8114/2018 201821025145 5 <sup>th</sup> July, 2018	2018 Published
5	Dr P Santosh Kumar Patra	"IGC-SYSTEM: Intelligent Garbage Collection System"	E-101/9390/2018 201821029064 2 <sup>nd</sup> August, 2018	2018

6	Mr.N. Sainath	“IGC-SYSTEM: Intelligent Garbage Collection System”	E-101/9390/9390 201821029064 2 <sup>nd</sup> August, 2018	2018
7	Dr P Santosh Kumar Patra	IBA SYSTEM – Biometric Authentication system. User can transfer the amount to registered account number	E-101/9387/2018 201821029061 2 <sup>nd</sup> August, 2018	2018
8	Mr.N. Sainath	IBA SYSTEM – Biometric Authentication system. User can transfer the amount to registered Account number	E-101/9387/2018 201821029061 2 <sup>nd</sup> August, 2018	2018
9	Mr.N. Sainath	R1-System online retrieval and indexing of images by using multi feature vectors and machine learning system	201821042816 14 <sup>th</sup> Nov, 2018	2018 Published
10	Mr.N. Sainath	I-Sign intelligent sign device with real date and time	201821049324 27 <sup>th</sup> Dec, 2018	2018 Published
11	Mr.N. Sainath	I-KEY: Intelligent key Pattern Active Through Biometric Input	201821049329 27 <sup>th</sup> Dec, 2018	2018 Published



12	Dr D B K Kamesh	I-Tala: Intelligent Tala	201821025141 5th July, 2018	2018 Published
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