## **MINDSPARK** The official newsletter of Instrumentation & Control Department



## JULY - DECEMBER 2023 ISSUE - IX



### **DR. SWETA P. DAVE**

#### Principal Government Engineering College,Gandhinagar.

Dear students, embrace each day with curiosity and determination. Your commitment to your studies and personal development has been truly inspiring, and it reflects the strength of our college community. As we

move forward, I encourage you to embrace the new academic term with enthusiasm and an open mind. Each class, assignment, and interaction provides a chance for you to expand your knowledge and skills. Remember that education is a journey, and every step you take brings you closer to your goals.Our dedicated faculty and staff are here to support you along the way. Don't hesitate to reach out if you have questions, concerns, or simply need guidance. Your success is our priority, and we are committed to fostering an environment where you can thrive academically and personally.Additionally, keep an eye out for upcoming events, workshops, and extracurricular activities that will enrich your college experience.Your potential is limitless, and every challenge is an opportunity to grow. Believe in yourselves, work hard, and let your unique talents shine. Together, let's make this academic journey memorable and successful.

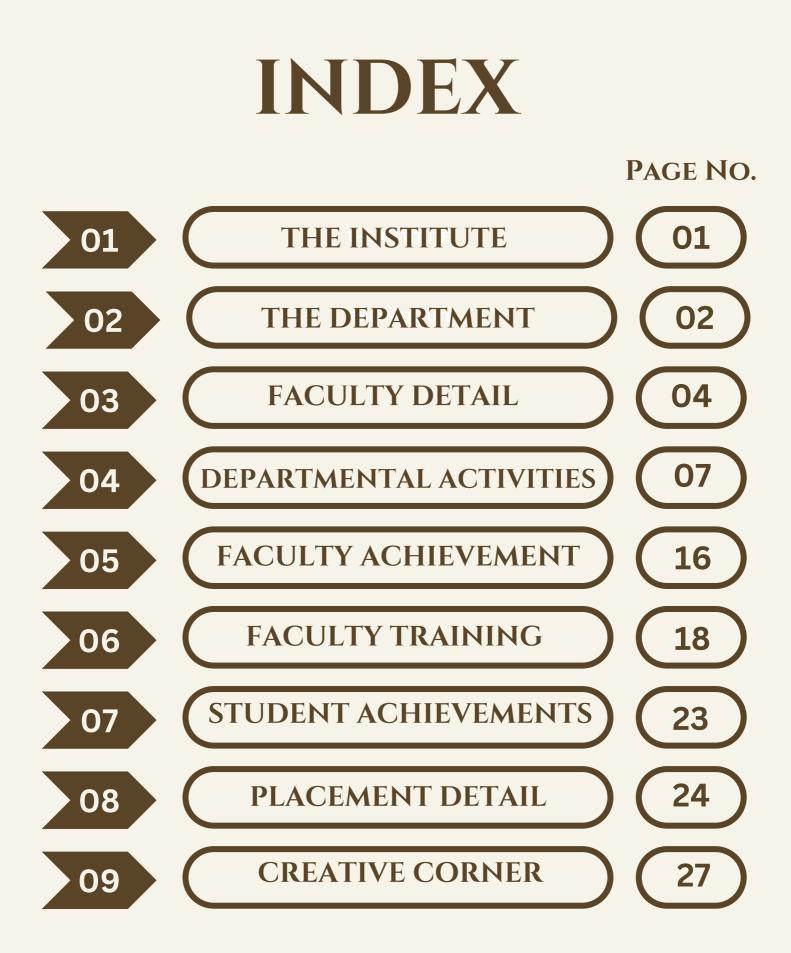


### DR. NARENDRA K. ARORA

#### H.O.D. , I&C Government Engineering College, Gandhinagar

Dear students, as we embark on this academic journey together, remember that perseverance and dedication pave the path to success.I hope this message finds you well and ready for the exciting challenges

that the new semester brings. As the Head of the IC Department, I am thrilled to welcome each of you back to another semester of exploration, growth, and academic achievement.First and foremost, Your commitment to excellence has not gone unnoticed, and I am confident that you will continue to demonstrate the same level of enthusiasm and diligence in your studies this semester.Our department is not just a place for learning but also a community where ideas are exchanged, friendships are formed, and futures are shaped. I encourage you to actively participate in class discussions, engage with your peers, and take advantage of the wealth of knowledge that our esteemed faculty members bring to the table. Keep an eye on announcements for these events, as they are excellent opportunities to expand your knowledge beyond the classroom.I believe in the potential of each and every one of you to excel academically and make meaningful contributions to our department and the broader academic community.Stay focused, embrace challenges, and let curiosity be your guide. Best wishes for a fulfilling and rewarding academic year ahead!



## THE INSTITUTE



### • VISION

• To be a premier engineering institution, imparting quality education for innovative solutions relevant to society and environment.

### • MISSION

- To develop human potential to its fullest extent so that intellectual and innovative engineers can emerge in a wide range of professions.
- To advance knowledge and educate students in engineering and other areas of scholarship that will best serve the nation and the world in future.
- To produce quality engineers, entrepreneurs and leaders to meet the present and future needs of society as well as environment.

## THE DEPARTMENT

### • VISION

• To impart quality education in Instrumentation & Control engineering through innovation to meet technological challenges of industries and society with environmental consideration.

### MISSION

- To impart knowledge about present trends in the field of Instrumentation & Control engineering.
- To train competent Instrumentation& Control engineers who can design, operate process instrumentation and also manufacturing an automation systems in industries.
- To encourage students to work on innovative research projects related to Instrumentation & Control engineering considering environmental aspect.

### • **PEO** - PROGRAM EDUCATION OBJECTIVE STATEMENTS

- PEO-I: To operate and maintain industrial Instrumentation & Control system.
- PEO-II: To design Industrial Instrumentation & Control system by innovative approach.
- PEO-III: To inculcate professional and ethical attitude, effective communication skills, multidisciplinary approach and an ability to relate Engineering issues in social and environmental context.
- PEO-IV: To acquire the ability for life-long learning needed for a successful Professional career.

### • **PSO** - **PROGRAM SPECIFIC OUTCOMES**

- PSO-1: Design and develop solutions for process control and automation industries and able to pursue career in research, industry, higher studies and adapt to changing technology.
- PSO-2: Able to understand professional and ethical responsibility with effective communication skills and life-long learning.

# FACULTY DETAIL



#### PROF. M. R. JANI

Designation : Associate Professor Qualification : ME (IC) Experience : 28 Years 6 Months

#### DR. S. A. RANKAWAT

Designation : Associate Professor Qualification : PHD Experience : 28 Years 6 Months





#### DR. D. H. SHAH

Designation : Associate Professor Qualification : PHD Experience : 28 Years 6 Months

#### PROF. A. D. RATHOD

Designation : Associate Professor Qualification : ME (IC) Experience : 23 Years 6 Months





#### PROF. M. B.HINGU

Designation : Assistant Professor Qualification : M.TECH., SYSCON-IITB Experience : 26 Years 6 Months , 01 years industry

#### **PROF. I. U. AJMERI**

Designation : Assistant Professor Qualification : ME (IC) Experience : 25 Years 6 Months





#### DR. K. C. DAVE

Designation : Assistant Professor Qualification : PHD Experience : 14 Years 6 Months

#### PROF. K. K. ACHARYA

Designation : Assistant Professor Qualification : ME (IC) Experience : 23 Years 6 Months, 02 years industry





#### DR. K. B. PATHAK

Designation : Assistant Professor Qualification : PHD Experience : 19 Years 6 Months

#### **PROF. K. S. VASHISHTHA**

Designation : Assistant Professor Qualification : ME (IC) Experience : 13 Years 6 Months





#### PROF. N. V. PATEL

Designation : Assistant Professor Qualification : ME (IC) Experience : 12 Years 6 Months, 05 years industry

**PROF. P. N. PATEL** 

Designation : Assistant Professor Qualification : ME (IC) Experience : 09 Years 6 Months





#### PROF. R. S. RANA

Designation : Assistant Professor Qualification : M.TECH(IC) Experience : 07 Years 6 Months

#### PROF. R. L. ZADFIYA

Designation : Assistant Professor Qualification : M.TECH(IC) Experience : 13 Years 6 Months





#### **PROF. A. N. BOKADE**

Designation : Assistant Professor Qualification : ME (IC) Experience : 18 Years 6 Months

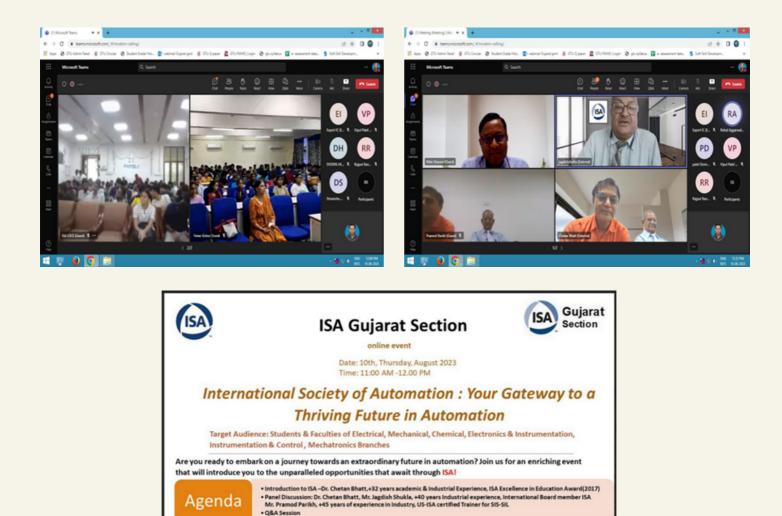
#### **PROF. J. J. SHAH**

Designation : Assistant Professor Qualification : ME (IC) Experience : 07 Years 6 Months



# DEPARTMENTAL ACTIVITIES

• ISA students' chapter had organised a **webinar on** "**ISA: Your gateway to a thriving future in Automation**" on 10/08/2023, on MS Teams platform.



An expert lecture along with panel discussion on spreading awareness of ISA students' chapter was conducted online by highly experienced executives of International Society of Automation Gujarat section. Many students participated enthusiastically from relevant departments. • An Expert talk on "Resume Building and Group Discussion" was arranged on 13/09/2023 for prefinal and final year students of the IC department.



- The expert session was held by Dr. Naresh Sharma faculty member from IBS a popular business school of Mumbai.
- To help students make their resume better so that their first impression in the companies they wished to be placed and to get a clear concept of what a group discussion is and what are the factors that should be kept in mind to perform best in group discussions, an expert session on both the topics was arranged.

• Engineers' Day was celebrated in the department on 15/09/2023. Various activities were planned the whole day, where the students of all semesters participated and won the prizes. Activities like, technical quiz, Group debate and Tech Lock were organised and winners were declared in each activity.



• Students of semester 7 visited various laboratories at IITRAM, on 21/09/2023.



• A Webinar on "Analyzers & Industrial Instrumentation" was organised on 26/09/2023 for students of semester 5. Mr. Haresh Prajapati(Alumni-IC-GECGn), currently working as an Engineer Assistant, ONGC-Hazira, was invited as a speaker. He explained the working of many industrial instruments with a good practical exposure.



• Alumni meet on 21/10/2023



• The department of Instrumentation and Control Engineering had organized an alumni meeting for all batches and alumni on 21t October 2023. The alumni meet was offline () and online at the same time. Microsoft Teams platform. The meeting started at 11.30 a.m. Ms. Tejaswini Yadav student of semester 7th compered the program. Head of Department, Dr. N. K. Arora addressed all the attendees.

• 2 single day Workshops on "Fundamentals of Control System" were organised on 27/09/2023 & 29/09/2023, for the students of the institute. Prof. Manish R. Jani (Associate Professor, IC Dept), Prof. Mukesh B. Hingu (Assistant Professor, IC Dept), Dr. Kalpesh B. Pathak (Assistant Professor, IC Dept) had conducted the workshop.



Fundamentals of Control system workshops covered basics of control system, modern control theory using state-space analysis and compensation in both time and frequency domains. Hands-on sessions were planned for case studies with industrial applications. Tools used for hands-on practice are MATLAB and SCILAB.

Due to students' overwhelming response and more than 90 registrations of students from various branches, two separate workshops on Fundamentals of Control Systems were conducted by the Instrumentation & Control department on 27-09-23 & 29-09-23.

• Mr. Umang Joshi and Ms. Drashti Oza, alumni of IC department delivered **expert talk on "Introduction to Hazardous Area" and "Career Guidance - Civil Services"** respectively. Approximate 71 students from all batches, alumnis and teachers participated in the event. Students and staff shared the memories, most of them volunteered to render services for the benefit of the current students of IC departments. The event was stimulating and enjoyable and simultaneously profitable as all insights came up. Ms. Tejaswini Yadav student of semester 7disseminated Mission Vision of department and institute.



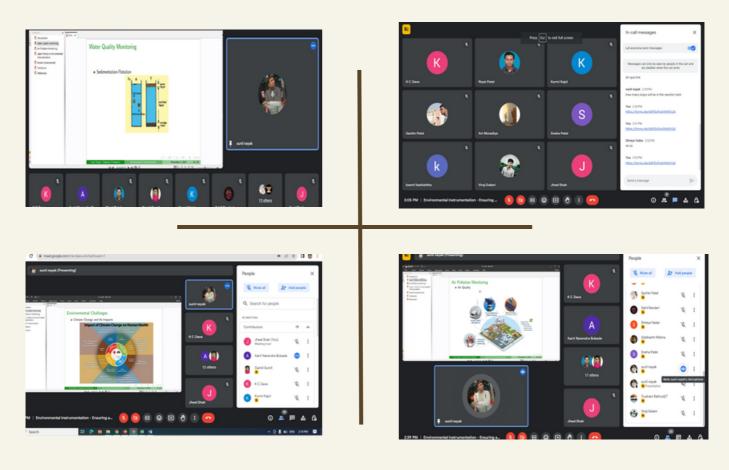
- An expert talk on "Image processing and its application" was organised on 26/10/2023 by the IC department for final year students. To enlighten students on how image processing has made its way into the industry and how we can opt it as a career, Mr. Nishant Patel, Associate System Engineer, Kevison System, Ahmedabad & Mr. Maaz Bakrawala from Semitronik Instruments Gandhinagar, who are also our precious alumni had given us their precious time to enlighten students on how image processing has made its way into the industry.
- After a small introduction on themselves and where they have been working, they began to provide the brief on what image processing is and what are the types of images that are present and what are the different processes involved in image processing and where can image processing be applied as in industries.



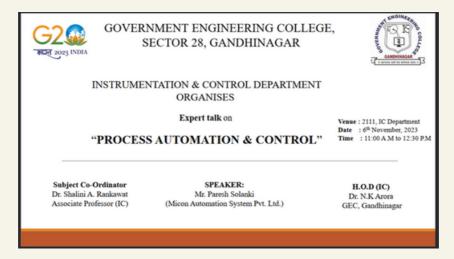
• A webinar on "Environmental Instrumentation-Ensuring Sustainable tomorrow" was organised on 02/11/2023.



• An expert session on "Environmental Instrumentation - Ensuring a Sustainable Tomorrow" was organised on 02/11/2023 by IC department. Prof. Sunil D. Nayak, from SAL Institute of Technology and Engineering Research, Ahmedabad, had conducted the session where semester 5 and 7 students enthusiastically participated in it. The session was very interactive and informative.



• An **Expert Talk on "Process Automation & Control"** was organised on 06/11/2023 by the IC department. Mr. Paresh Solanki, Associate System Engineer, Micon Automation, Ahmedabad was invited as a session expert.



• An **event "Intellect Ignite"-For the Students, By the Students**, was organised by the members of ISA students' chapter, on 06/11/2023. Activities like, Aptitude & Reasoning Quiz & Group Discussion were planned and conducted by the students of IC department.



• An expert session on "Designing Control Panels and Field Instrumentation" was organised on 07/11/2023 by ISA Students' Chapter at IC department. Mr. Amar Parmar, from MASIBUS Instruments Pvt. Ltd.-Gandhinagar, had conducted the session where semester 5 and 7 students enthusiastically participated in it. The session was very interactive and informative.



## FACULTY ACHIEVEMENT

 Prof. K. K. Acharya had conducted a session on "Innovation & Start-ups" organised by the institute under SSIP & IIC Cell-GEC Gandhinagar on 18/07/2023, where final year students of all the branches had participated.



• Prof. K. K. Acharya was invited as an expert for evaluation of SSIP project on 01/11/2023, which has been selected by "i-Hub, Ahmedabad" for funding under Srujan Program, at Bio-medical department, G.P., Gandhinagar.



• NPTEL has recognized Prof. M. B. hingu as an "NPTEL Star" - NPTEL MOTIVATED LEARNER, for completing 8 NPTEL courses.



# FACULTY TRAINING

• Prof. Amar Rathod (Associate Professor, IC Dept) completed Swayam MOOC FDP on "Soft Skill Development" (08 Weeks) through CTE Gandhinagar.



 Prof.(Dr.) S. A. Rankawat has completed one week STTP on "Biomedical Advancements in Engineering", conducted by NITTTR Bhopal-Extension Center Ahmedabad, from 25/09/2023 to 29/09/2023.



• Prof. Mukesh Hingu (Assistant Professor, IC Dept) completed Swayam MOOC FDP on "Transducers for Instrumentation" (12 Weeks) through CTE Gandhinagar.



• Prof. Mukesh Hingu (Assistant Professor, IC Dept) completed Swayam MOOC FDP on "Developing Soft Skills and Personality" (08 Weeks) through CTE Gandhinagar.

Faculty I	NPTEL-AICTE Development Programme (Funded by the MOE, Govt. of India)			
	This certificate is awarded to			
	MUKESH B HINGU			
for successfully completing the course				
Developing Soft Skills and Personality				
	with a consolidated score of 75 %			
Prof. Andrew Thangaraj NPTEL Coordinator IIT Madras		(jul-Sep 2023)		
Roll No: NPTEL23HS116S34440585	Duration of NPTEL co	urse : 8 Weeks		
	course through MOOCs mode, has submitted online assignments and passed proctor vis under CAS as per AICTE notifications dated 24* July 2018, similar to other refresh			

• Dr. Kalpesh B. Pathak (Assistant Professor, IC Dept) completed Swayam MOOC FDP on "Training of Trainers" (12 Weeks) through CTE Gandhinagar.



• Ravindra S. Rana (Assistant Professor, IC Dept) completed Swayam MOOC FDP on "Training of Trainers" (12 Weeks) through CTE Gandhinagar.

Faculty D	NPTEL-AICTE Development Programme (Funded by the MOE, Govt. of India)	
	This certificate is awarded to	
	RAVINDRA SURESHBHAI RANA	
f	or successfully completing the course	
	Training of Trainers	
,	with a consolidated score of 80 %	
Prof. Andrew Thangaraj NPTEL Coordinator IIT Medras		(jul-Oct 2023)
Roll No: NPTEL23MG108S535700115	Duration of NPTEL co	urse : 12 Weeks
	ourse through MOOCs mode, has submitted online assignments and passed proctor s under CAS as per AICTE notifications dated 24 <sup>th</sup> July 2018, similar to other refresh	

• Prof. Keerti S. Vashishtha (Assistant Professor-IC Dept.) has completed MOOC FDP on "Transducers forInstrumentation" (12 weeks)- July to December 2023 through CTE Gandhinagar.



• Prof. Aarti N. Bokade (Assistant Professor-IC Dept.) has completed MOOC FDP on "Transducers forInstrumentation" (12 weeks)- July to December 2023 through CTE Gandhinagar.

Faculty	NPTEL-AICTE Development Programme (Funded by the MoE, Govt. of India)	
	This certificate is awarded to	
	AARTI NARENDRA BOKADE	
	for successfully completing the course	
т	ransducers for Instrumentation	
	with a consolidated score of 84 %	
Prof. Andrew Thangaraj NPTEL Coordinator IIT Madras		(Jul-Oct 2023)
Roll No: NPTEL23EE105S835700267	Duration of NPTEL cou	urse : 12 Weeks
	e course through MOOCs mode, has submitted online assignments and passed proctore ions under CAS as per AICTE notifications dated 24° July 2018, similar to other refresh F.No. AICTE / RIPD / FDP through MOOCs / 2017-18	

• Prof.(Dr.) Shalini A. Rankawat has attended a two-days workshop on "National Institutional Ranking Framework (NIRF) and National Board of Accreditation (NBA)", hosted by GTU, on 24th and 25th August, 2023, at GTU, Chandkheda campus.

• Prof. Niyat V Patel (Assistant Professor, IC Dept) completed Swayam MOOC FDP on "Soft Skill Development" (8 Weeks) through CTE Gandhinagar.



• Prof.(Dr.) S. A. Rankawat (Associate Professor, IC Dept) completed Swayam MOOC FDP on "Introduction to Industry 4.0 and Industrial Internet of Things" (12 Weeks) through CTE Gandhinagar.

This of DR SH.	d by the Mo ertificate is ALINI A R fully comp 4.0 and J	e Certif E, Govt. of India) awarded to ANKAWAT letting the course Industrial Intern		
Online Assignments	23.69/25	Proctored Exam	57/75	
Total number of candid	lates certifi	ed in this course: 953	4	
				Baneyi
	Jul-Oct 2 (12 week c			Prof. Haimanti Banerji Coordinator, NPTEL IIT Kharagpur
Indian Institute of Technology Kharagpur			(	HEE ORIAN EDUCATION SWAYAMM
Roll No: NPTEL23CS82S535700078 To verify the ce	rtificate		No. of cred	its recommended: 3 or 4

# **STUDENT ACHIEVEMENTS**

• Yashar Pathan, student of sem-7-IC was a part of the GTU ROBOCON team. They represented India in the International Competition called ABU ROBOCON, held in Cambodia, on 27/08/2023.



 Manav Bhatt, Smit Kambli, Dhananjay Murlidhar, Kunal Sharma, Vivek Kumar & Ravi Chahar, students of semester 7-IC, had showcased their SSIP funded project at Start-up Conclave-2023, held at Mahatma Gandhi Exhibition center, Gandhinagar. The conclave was held by the Education department from 6th December 2023 to 10th December 2023. Their project, "Dustex" is a fully automatic solar panel cleaning system and customers can operate from an application.





# PLACEMENT DETAIL

• With a successful placement of Batch 2023 students in different prominent industries , the Placement Cell is gearing up for an active season for the Batch 2024 students. The collective efforts by the faculties of the department in making collaborations with different companies, students are ensured to have promising placement opportunities and well-paid internships. The placement cell extends heartfelt gratitude to each recruiters of batch 2023

### **THE KEY RECRUITERS - BATCH 2023**

Axis Solutions Pvt. Ltd.	Emvee Engineers		
Rutav Engitronic System	Optopixel Pvt. Ltd.		
Multispan Ltd.	Purvax Engineers		
Precision Mass Pvt. Ltd.	Zydus Lifesciences Ltd.		
Reliance Industries Limited	Solvay Specialities India Pvt. Ltd.		
Adani Mundra Solar PV Ltd,	Prompt Equipment Pvt. Ltd.		
Yokogawa India Ltd.	Tata Chemicals Limited		
Lanxess India Pvt. Ltd.	KHS GmbH		
Vardhman Acrylics Limited	LANXESS India Private Limited		



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### • PLACEMENT ACTIVITY DETAILS

- The Departmental Training and Placement cell invited the ICFAI Business School (IBS), Ahmedabad to conduct a session on Resume building and Group Discussion on September 13, 2023.Dr. Naresh Sharma, a faculty member at IBS Mumbai, served as the guest speaker. The session aimed to prepare students for placement drives by enhancing their resume-writing skills and providing insights into effective group discussions.
- The session expert commenced the session by explaining the importance of resume writing, including types of resumes and essential writing considerations. Transitioning to the second topic, group discussion, he delved into why companies conduct GDs, types of topics, effective communication strategies, and content expectations in speeches.
- To gauge students' understanding, The session expert conducted a live GD with 10 randomly selected participants. After the discussion, he provided valuable feedback on areas for improvement, helping students understand their strengths and weaknesses.



## **CREATIVE CORNER**

#### ATTITUDE

The longer we live the more we realize the impact of attitude in our lives. Attitude to us is more important than facts. It is more important than the past, than education, than money, than circumstances. It is more important than failures, than successes or what other people think, say or do.

Attitude is more important than appearance, skill or calculations. Attitude makes a home a company, a community an organization.

The remarkable thing is we have a choice everyday regarding the attitude we will embrace for that day. We can't change the past. We can't tell other people to change themselves

There are countless things. We cannot influence our today and our tomorrow. The only thing we can do is play on the one we have.... Our Attitude!

-By Dr. Shalini A. Rankawat

#### **BLESSINGS IN DISGUISE**

A man who always fights for right, A man whose mind is always bright, And in difficulties, he has a smile, That man is a blessing in disguise.

A man who serves his fellow beings, And is never concerned with his own means, And always in his things, is satisfied, That man is a blessing in disguise.

A man who is courteous and never deceives, A man who is delighted in whatever he receives, And who understands the value of time, That man is a blessing in disguise.





