

Dr. Gautamkumar R Patel

1. Official Address (including PIN No., Mobile Number & e-mail) :

**Professor & Head, Department of Agricultural Engineering,
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Or

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2. Educational qualifications:

Level	Degree	Board/ University	Subject(s)with majorfield
Ph.D	Ph.D (Agril. Engg.)	Anand Agricultural University	Soil and Water Engineering
Masters	M.Tech (Agril. Engg.)	Junagadh Agricultural University	Soil and Water Engineering
Graduation	B.Tech (Agril. Engg.)	Gujarat Agricultural University	Agricultural Engineering

3. Details of employment from the currently held position (most recent first):

Sl. No.	Position held	Nature of work
1.	Professor (Agril. Engg.) and Registrar (additional charge since last 5 year)	<ul style="list-style-type: none">- Teaching of courses of Agricultural Engineering (soil and water engineering, Farm machinery and power engineering, natural resource management and basic engineering)- Development of laboratories (Surveying and levelling, fluid mechanic, water resource engineering, soil and water conservation engineering farm machinery and power engineering etc.)- Preparation of Study material(theory notes and practical manuals)- Farm development <p><u>Duty and functions as a Registrar</u></p> <ul style="list-style-type: none">- Recruitment of employees under various categories as regular/on contract/ad-hoc/on deputation/on daily wagers etc., Recruitment Rules/procedure/Roster- Prescribing qualifications of teaching/non-teaching and other staff- Appointment/Joining Report/Transfer, Maintenance of service records/service books, Confirmation/Probation regularization of Employees, Promotion of employees, Home town/Date of birth/Family details, Retirement/Resignation/end of deputation/lien, Revision of Pay Scale, Fixation of Salary /Higher scale- Pension cases/gratuity cases, Dept Examination/Training, Training/Seminar/Symposium/Workshop, No objection certificate for job elsewhere/ for Passport, Staff unions/Association, Increments/Crossing EB- Leave of staff of VC office/ Officer, Career advancement of teachers, GPF Advance etc., All types of Allowances, All types of Loan - HBA/Car/Scooter/Fan etc, Security/ Telephone, Stationery & Printing, LAQ/Parliament, Compilation/Co-ordination of Information, Purchase, Sanction etc., Staff Uniform, Budget, Registry/outward-inward/receiving of Dak, Audit co-ordination, Dead stock maintenance, Land records, Refund of deposits, Housekeeping contract etc- Court Case - High Court, Civil & Labour Courts, Suspension/termination/dismissal, Disciplinary matters/departmental/preliminary inquiries, Draft Statutes/Rules/Regulations-

2.	Assistant Research Scientist	<ul style="list-style-type: none"> - Processing Research scheme proposals - Technical assistance in directorate of research - Annual rate contract proposals processing / tendering including e-tendering - Compilation of research reports including External Agency - Organizing meetings such as Research Council / Farm level cropping scheme/Adaptive trials etc. - Preparation of University Documents (Annual Report, impact analysis, Research, Status Report, Vision etc.) - Preparation of agenda items (Academic / Research Council, PG BoS and BoM / VC Conference / IAUA / ICAR regional committee, SAU council etc.), - Preparation of speech of Governors/Ministers/Vice Chancellor/Director of Research - Attending / handling work related to RTI and legal matters / Technical work related to planning, execution, monitoring, evaluation report submission of ICAR / Plan / Non – plan and other agency projects - Correspondence with Government/private agencies for research projects - MoU preparation procedure with scientific organization - Monitoring / member of selection committee / administrative duties for plan / non – plan schemes and other funded Govt. / Non-Govt. schemes of the University / College etc. - Lectures and drafts prepared reports, proceedings preparation, assembly / parliament questions handled
3.	Assistant Professor-Soil and Water Engg.	<ul style="list-style-type: none"> - Teaching of courses of soil and water engineering and basic engineering - Development of laboratories (Surveying and levelling, fluid mechanic, water resource engineering, soil and water conservation engineering etc.) - NSS and Placement activities - Farm development
4.	Subject Matter Specialist (Agril. Engg.)	<ul style="list-style-type: none"> - Agricultural extension service through on campus and off campus training programmes related to Agricultural Engineering - Vocation training programme for farm women, rural youth and entrepreneurs - Field day/Krishi goshthi/Shibiretc - Front line demonstrations, exhibitions etc. - Seed production at farm level - On farm testing and trials
5.	Officer (Sales and Marketing)	<ul style="list-style-type: none"> - Marketing and Sales of Micro Irrigation systems and Irrigation equipments - Technical survey of field, Design and Installation of micro irrigation systems - Technical field service and guidance to farmers - Liaison with various Government offices, Banks, Co-operative Societies and other organizations.
6.	Research Associate	<ul style="list-style-type: none"> - Mathematical interpretation and Verification of medium range weather forecast - To prepare and issue agro met advisory bulletins based on weather forecast - Dissemination of weather forecast to farmers through various media - Feedback collection from the farmers - Departmental research activities - Research report preparation and documentary work.

4. Area of Specialization: Natural Resource management, RS & GIS, Irrigation Management

5. a) List of Publications (based on research work):

Sr. No.	Title of Paper
1.	Hydraulic of broad bed furrow through volume balance approach in medium black soil
2.	Hydraulics performance evaluation of porous pipe irrigation system
3.	Some physical and frictional properties of sweet orange and tangerine
4.	Optimization of moisture loss and fat uptake of chevon meat during frying using response surface methodology
5.	Characterization rainfall and cropping pattern of sub-montane zone(I) for Maharashtra state
6.	Rainfall characterization and crop planning of scarcity zone (zone-II) of Maharashtra state
7.	Rainfall variability (annual and seasonal) in Anand of Middle Gujarat(India)
8.	Characterization of rainfall of different sub mantane zone for Maharashtra state
9.	Development of monsoon model for long range forecast rainfall explored for Anand
10.	Agricultural Planning and sustainable development of ungauged watershed area using remote sensing and GIS
11.	Assessing the relative impacts of the factors affecting MIS adoption process
12.	Performance Prediction of a Downdraft Gasifier using Equilibrium Modeling for Cotton Stalk
13.	Watershed Action Plan for South Saurastra Region in Compliance with Changing Rainfall Patterns Using Remote Sensing and GIS Techniques
14.	Evaluation of Temperature and Rainfall Trends using Mann-Kendall Test in Saurashtra Region (Junagadh) of Gujarat, India
15.	Prediction and Validation of Runoff Through RS and GIS-based Distributed SCS-CN Method
16.	Micro watershed prioritization for effective soil conservation planning of sub watershed
17.	Assessment of climate change in Anand of central Gujarat with reference to temperature fluctuation: A case study
18.	Assessment and morphometric analysis for prioritizing erosion prone area in RS and GIS environment
19.	Assessment of Agro-Land Suitability for Rice (<i>Oryza sativa L.</i>) in Bhal Area of Gujarat Using GIS and Remote Sensing
20.	Comparative Performance of Linear Spectral Mixture & NDVI Technique by Mapping Sediment Yield using SEMMED Model
21.	Remote sensing and GIS base crop acreage estimation of the Rabi season growing crop of the Panchmahal district, Gujarat
22.	An Evaluation of the Performance of Five Meteorological Drought Monitoring Indices Over an Arid and Semi-Arid Region of Gujarat (India)
23.	Comparative assessment of curve numbers based on land cover land use changes and rainfall-runoff data in remote sensing and GIS environment
24.	Assessment of crop water requirement of maize using remote sensing and GIS
25.	Stochastic Disaggregation of Daily Rainfall Using Barlett Lewis Rectangular Pulse Model (BLRPM): A Case Study of Middle Gujarat
26.	Rainfall-Runoff Modelling Using HEC-HMS Model, Remote Sensing and GIS in Middle Gujarat, India
27.	Assessment of Diurnal Variability and Region-Specific Connection across Intensity, Depth & Duration of Rainfall
28.	Assessment of Spatiotemporal Variation of Agricultural and Meteorological Drought in Gujarat (India) Using Remote Sensing and GIS

b) List of books/ Chapters in Books (Authors, year, Book/Book Chapter Title, Editors details, Publisher, Page No., DOI details, ISBN)

Sr. No.	Title of the Book / Chapter with page No. / Articles
1	Performance evaluation of different irrigation systems
2	Tractor no karyakshamupyogemkarsho?
3	Tapakpiyatpadhdhatidvarasamrudhhkhetianejalvyavasthapan
4	Samtalanedariyakanthanavistaromasamasyarupijamin nu vyavashthapan
5	Khetar ma vadharanapaninanikal nu vyavashthapan
6	Badlatavatavaranniparisthitimajamindhovananeteniaadasaro
7.	Use of remote sensing and GIS technologies in soil and water conservation

c) List of Publications(basedontheextensionwork)

a. Bulletins (each bulletin of 2 pages or above)

Sr. No.	Title of the article
1	Saving of irrigation water through drip irrigation for different crops
2	Long range south west monsoon rainfall for Gujarat
3	Improved cook stove boon for rural energy consumption
4	Saving of irrigation water through drip irrigation for different crops
5	Role of climate change on crop production
6	Quality evaluation and tenderisation of Goat meat
7	Fig wine a nutritive beverages
8	Organic Agriculture
9.	Significance of Gypsum in reclamation of Sodic/Alkali soil
10.	Rain Water Harvesting: Need of the Days
11.	Drought Management for Sustainable Crop Production in Dry Farming Area
12.	Significance of Farm Pond in Rainfed Agriculture
13.	Geographic Information Systems (GIS) In Natural Resource Management
14.	Application of Remote Sensing and GIS in Irrigation and Drainage

b. Training manual/compendium of training (each training manual of 25 page or above)

Sr. No.	Title of the Book / Chapter with page No. / Articles	Book Title, Editor and Publisher
1	Training manual on season long training programme of Cotton Mini Mission-II (ToF) KVK, Mehsana	Training manual on season long training programme of Cotton Mini Mission-II (ToF) KVK, Mehsana2006-07
2	Training manual on season long training programme of Cotton Mini Mission-II (ToF) KVK, Mehsana	Training manual on season long training programme of Cotton Mini Mission-II (ToF) KVK, Mehsana2007-08
3	KhedutMargaDarshika On World food Day celebration	KhedutMargaDarshika On World food Day celebrationBy KVK mehsana& GK Patel ortho. Hospital 2007-08
4	Research Accomplishment & Recommendations AAU, 2012	Research Accomplishment & Recommendations of AAU, 2012, AAU
5	Research Accomplishment & Recommendations AAU, 2013	Research Accomplishment & Recommendations of AAU, 2013, AAU

6	Research Accomplishment & Recommendations AAU, 2014	Research Accomplishment & Recommendations of AAU, 2014, AAU
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c. ITKs documented and published

Sr. No .	Name of Book	Name of book chapter
1.	<i>JaminSwashthyaaneKrushi</i>	Samtalanedariyakanthanavistaromasamsayarupijamin nu vyavashthapan
2	<i>JaminSwashthyaaneKrushi</i>	Badlatavatavaranniparisthitimajamindhovananeteniaadasaro
3	Kudaratistroto nu saranksharan	Badlatavatavaranniparisthitimajamindhovananeteniaadasaro
4	Kudaratistroto nu saranksharan	Samtalanedariyakanthanavistaromasamsayarupijamin nu vyavashthapan
5	Kudaratistroto nu saranksharan	Khetar ma vadharanapaninanikal nu vyavashthapan

d. Popular article

Sr. No.	Title of the article	Magazine/Book Title, Editor and Publisher
1	<i>Palma rojanikhetiphatti</i>	Pamphlets, KVK, Mehsana, 2006-07
2	<i>Diwelaniadhunikkhetipadhatti</i>	Pamphlets, KVK, Mehsana, 2006-07
3	<i>Rainivigyanikkhetipadhatti</i>	Pamphlets, KVK, Mehsana, 2006-07
4	<i>Magnivigyanikkhetipadhatti</i>	Pamphlets, KVK, Mehsana, 2006-07
5	<i>Ghaunivigyanikkhetipadhatti</i>	Pamphlets, KVK, Mehsana, 2006-07
6	<i>Jiruninafakarakkhetipadhatti</i>	Pamphlets, KVK, Mehsana, 2006-07
7	<i>SoyaninPrakriyaUdhyog</i>	Pamphlets, KVK, Dahod, 2008-09
8	<i>Ek graminUrjastrot: biogas</i>	Gujarat Samachar, Krishi vishva, 2007-08
9	<i>Gramyakshetnerojgarininavitak, Gobar bank</i>	Gujarat Samachar, Krishi vishva, 2007-08
10	<i>Paninayogyavyavashthapan mate tapakpadhttivardanrup</i>	Gujarat Samachar, Krishi vishva, 2007-08
11	<i>Kshariyajaminsudharanaanetenuvyavashthapan</i>	Gujarat Samachar, Krishi vishva, 2007-08
12	<i>Amliyajaminsudharanaanetenuvyavashthapan</i>	Gujarat Samachar, Krishi vishva, 2007-08
13	<i>Gobar bank nu aayojan...aajnasamaynitatijaruriyaat</i>	<i>Agro Sandesh, KrushiVishesh, 20/03/2020</i>

e. Others (folders, leaflets, abstracts etc)

Sr. No.	Title of the article	Name of event or published in
1	Evaluation of different irrigation systems on yield potential on summer ground nut	Souvenir of 41 st ISAE annual convention and symposium, JunagadhJanuary 2007
2	Development of ground water recharging system for Bhal region of Gujarat State	Souvenir of 43 rd ISAE annual convention and symposium, RanchiFebruary 2009

3	Development and evaluation of a roller type bed shaper	Souvenir of 44 th ISAE annual convention and symposium, New Delhi, January 2010
4.	Assessment of agro-land suitability for wheat using GIS and remote sensing	National Seminar on "Agrometeorological Interventions for enhancing farmer's Income" organized by Association of Agrometeorologist, Anand and Kerala Agricultural University, Trissure, held during 20-22, January, 2020 at KAU, Trissure, Kerala.

6. Awards and Honours received (Name of the award, agency, date—enclose certificate) International, National, and Regional:

- **The Gujarat Association for Agricultural Sciences, Ahmedabad (www.gaasindia.org) conferred a Young Scientist Award (Best Ph.D Thesis) for the year 2015 in the subject of Agricultural Engineering**
- **The Society for Advancement of Human and Nature (SADHNA), Dr YS Parmar University of Horticulture & Forestry, PO Nauni, Solan 173 230 HP, India conferred a “SADHNA YOUNG ACHIEVER AWARD-2020” for the contribution in agricultural science**

7. TECHNICAL ARTICLES AND RADIO TALK

- Twenty Technical Articles in popular Agricultural magazines(**Gujarati language**)
- 10 Technical articles in popular Agricultural Magazine(**English language**)
- Five newspaper articles and seven printed leaflets/booklets(**Gujarati language**)
- Have delivered Two Radio Talk in All India Radio(**Gujarati language**)

8. RESEARCH PAPERS PRESENTED IN SEMINARS/WORKSHOPS

- Presented **more than 25** Research Papers in National Conference/convention and Symposium

9. Mentorship provided (Students guided, teaching etc.):

Teaching to M. tech and PhD students: regular as per the academic calendar

Guiding and mentoring to M. Tech/Phd students: 02 at present

Number of Student (s) guided of M. Tech : 06

Type of teaching material Developed (Theory note/Practical manual /Slides/Charts)

Sr. No.	Course
1	Engineering drawing FMP- 1.1.3
2	Surveying & levelling SWE-1.2.5
3	Water Resource Engg.SWE-2.1.2
4	Soil & water cons. Engg. SWE-2.1.5
5	Irrigation Technology SWE-2.2.6
6	Introductory Soil and water conservation Engineering Ag. Engg 2.1
7	Renewable Energy sources Ag. Engg 6.4
8	Farm Machinery and Power Ag. Engg 3.2

9	Protected Cultivation and PHT Ag. Engg 5.3
10	Fundamental of Soil and Water Conservation Engg Ag Engg 2.1
11	Introductory Soil and water conservation Engineering Ag. Engg 2.1
12	Farm Machinery and Power Ag. Engg 4.3

10. Training programme attended

Period	Name of the institute	Specialization
11-15 March, 2019	Institute of Public Enterprise, MHRD, Hyderabad	Accountability and responsiveness in scientific organizations
10 to 30 Sep. 2013	National Bureau of Soil Survey and Land Use Planning, Udaipur	RS and GIS application in natural resource management
11 to 31 October, 2010	Dept. of Soil & Water Engg, CAET, Junagadh Agricultural University, Junagadh	Water Resource Management in Coastal Area for enhancing water Productivity-Winter School
1 to 30 June, 2001	Shri Vivekanand Research and Training Institute (VRTI), Mandvi (Kutch).	Watershed management and Soil-Water Conservation Practices.
1 to 30 June, 2000	Northern Region farm machinery Training and testing Institute, Hissar (Haryana)	Tractor, Diesel Engine Operations, Maintenance and Repairs.
20 Sept. to 8 October, 2004	India Meteorology Department (IMD) Pune (India)	Agromet observer's Course (Observation, Tabulation, Installation and Calibration of met. Instruments)
1July to 24 August, 2002	MANAGE, Hyderabad and Shri VRTI, Mandvi-Kutch	Training on Agri business & Agriclinic centre

11. Membership of Scientific Societies / Other Professional bodies:

Sr. No.	Type of membership
1	Life member of Indian Society of Agricultural Engineers (ISAE), New Delhi
2	Life member of The Gujarat Association for Agricultural Sciences (GAAS), Ahmedabad
3	Life member of Association of Agro meteorologist, New delhi
4	Life Member of Institution of Engineers, Kolkatta
5	Life member of Society of Extension Education of Gujarat

12. Technologies Developed/Transferred:

Number of Technologies developed (Please give details)

NOS. OF THE RECOMMENDATIONS FOR FARMERS/SCIENTIFIC COMMUNITY: **03**

- 1. Adoption of Irrigation systems in tribal and hilly area**
- 2. Optimization of Irrigation scheduling and canal operation**
- 3. Conjugative use of irrigation water through drip irrigation**