

# Faculty Profile

## Personal Details

Name	Dr. SOLANKI SMITA NATWARLAL
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## Academic Qualifications

Degree	Specialization	University	Year of Passing
B. Tech.	Agricultural Engineering	PKV, Akola	July-1988
M.Tech. (Agril. Engg)	Farm Power and Machinery	Dr. PDKV, Akola	May-1991
PhD (Agril. Engg.)	Farm Power and Machinery	Dr. PDKV, Akola	Nov. 2019

## Professional Experience

Stream	Years	Stream	Years
Teaching	31	Research	31
Extension	31	Administration	30

### Area of Research/Interest

Farm Power and Machinery (Farm Mechanization/Mechanization in Dairy)

## Research Guidance

Degree	No. of Student & Guided
M.Sc./M.Tech	18
Ph.D.	01

## Research Accomplishments (Recent Ten Most Important Publications)

Sr.No	Title	Journal	ISSN/ISBN	NAAS Rating
01	Development and performance evaluation of tractor drawn turmeric digger cum separator.	International Journal of Current Microbiology and Applied Sciences Vol.8(02)	ISSN: 2319-7706	5.38
02	Performance evaluation of tractor drawn turmeric digger.	International Journal of Current Microbiology & Applied Sciences Vol.8(4)	ISSN: 2319-7706.	5.38
03	Application of solar Energy for operating animal drawn agro-processing unit: Papad making machine	The Pharma Innovation Journal 12(1) 835-839	ISSN(E) 2277-7695 ISSN (P) 2349-8242	5.23

04	Fabrication and experimental investigation of PCM capsules integrated in Solar cabinet Dryer	Annals of Forest Research,66(2): 496-508,	ISSN: 18448135, 20652445.	7.80
05	Mathematical Modeling of thin layer drying kinetics of shatavari (asparagus racemosus) in solar cabinet dryer integrated with phase change material	Annals of Forest Research,66(2):509-523,	ISSN: 18448135, 20652445	7.80
06	Design and development of tractor drawn inter-cultivator cum sprayer for Soybean and Cotton	International Journal of Current Microbiology & Applied Sciences Vol.10(02)	ISSN: 2319-7706	5.38
07	Performance and evaluation of VNMKV, UAE developed bullock drawn turmeric planter.	The Pharma Innovation Journal 12(1) 131-136	ISSN(E) 2277-7695 ISSN (P) 2349-8242	5.23
08	Design and performance evaluation of MAU Dibbler	J. of Agricultural Engineering (ISAE) 43(2) 68-71	ISSN 0256-6524	5.59
09	Performance Evaluation of VNMKV Developed Power Weeder.	International Journal of Current Microbiology and Applied Sciences, Vol.9(07)	ISSN: 2319-7706	5.38
10	Development in solar powered agricultural sprayers : A Review	International Journal of Current Microbiology & Applied Sciences Vol.9(12)	ISSN: 2198-2210	5.38

### Credentials:

Particulars	Numbers	Particulars	Numbers
Research Articles	36	Popular Articles	56
Books / Booklets	03	Book Chapters	04
Research/Technology Recommendations	46	Varieties Developed	00
Patents	00	Abstracts Published	57
Technical Publication	18		

### Significant Achievements(Top Five)

Sr. No.	Patent/IP/Technologies/ Varieties/Machineries Developed / Methodologies/ Recommendations	Year
1.	MAU Sickle cum Khurpi	2005
2.	MAU Hand Rack	2005
3.	Bullock Drawn Traction Sprayer	2008
4.	Manual Cotton stalk up-rooter	2010
5.	Bullock cart for central platu zone	2013
6.	Groundnut stripping frame	2013
7.	Manually operated maize sheller	2013
8.	Bullock drawn rotary mode water lifting device	2013

9.	Bullock drawn stubble collector	2014
10.	Improved yoke for RK, Deoni, Local Bullocks	2014
11.	Optimization of Blade for harrow	2014
12.	Rotary mode for chaff cutter & mini thresher	2014
13.	Bullock operated three tyne ferti hoe	2014
14.	Development of bullock drawn Manure Spreader	2015
15.	Development of Rotary mode power transmission for Agro Processing unit	2016
16.	Development of Multinut Dehullur	2016
17.	Development of Engine operated auger	2016
18.	Bullock operated sugarcane earthing up equipment	2017
19.	Bullock operated raised bed Turmeric Digger	2017
20.	Single Bullock Harrow	2017
21.	Single Bullock Ferti Hoe	2017
22.	VNMKV 5 row BBF Planter cum sprayer	2018
23.	VNMKV 3 Tyne hoe with furrow opener for BBF sowing	2018
24.	VNMKV Bullock drawn Solar operated High Clearance Sprayer	2018
25.	VNMKV Single Bullock Planter	2018
26.	Development and performance evaluation of bullock drawn MPTC for planter cum solar operated sprayer	2019
27.	Design and development of bullock drawn mulch laying machine	2019
28.	Design development and performance evaluation of bullock drawn cotton planter cum fertilizer drill	2019
29.	Development of bullock drawn turmeric Interculture cum earthing up implement	2019
30.	Development of tractor drawn rotary inter-culturing tool	2019
31.	Design and fabrication of mini manual boom sprayer (MMBS) on four bar chain mechanism	2019
32.	Development of Garlic Planter	2019
33.	VNMKV developed solar operated Animal/Bird scarer cum light trap	2020
34.	Development of Mobile Solar Energy Cart	2021
35.	Development of Single Bullock drawn Ridger	2021
36.	Development of Bullock drawn Bed Maker	2021
37.	Design and Development of Tractor drawn Inter- Cultivator Cum furrow opener and Sprayer with slim tyres	2021
38.	Design and Development of Cutting Mechanism of Flail Mower	2021
39.	Design and Development of manually operated vegetable transplanter	2021
40.	Package of Bullock operated and Tractor Drawn Machinery for Soyabean	2022
41.	Styrene-Butadiene rubber interventions (Chassis and Engine Foundation) with soft foam hand grips for handle are recommended for reduction in hand arm vibration	2022
42.	Design and development of Animal Lifting Device	2023
43.	Design and development of Bullock Drawn Slurry Applicator	2023
44.	Design of solar photo-voltaic system for agro processing unit and its	2023

	performance evaluation.					
45.	Development of bullock drawn solar operated small (4 nozzle) sprayer.	2023				
46.	Comparative Economics of VNMKV Developed improved BBF (4 in 1) Technology for Soybean Crop in Marathwada Region	2023				
<b>Externally Funded Projects:Implemented/Handled/Assisted</b>						
Sr. No.	Title of the Project	Participation		Grants (Rs. Lakh)	Funding Agency	Duration
		PI	CO-PI			
1.	Reducing drudgery of farm women through use of improved agricultural implement for dominant cropping system in Marathwada region.	S.N.Solanki	Ramteke R.T.	Rs. 19.04	ICAR New Delhi	2003-2005
2.	Anthropometric survey of agriculture worker of Maharashtra State.	R.G.Nadre	S.N.Solanki	Rs. 12.83	ICAR New Delhi	(Apr 2004-Mar 2006)
3.	TSP	S.N.Solanki		Rs.10.00	IIMR, Hyderabad	
4.	AICRP on Utilization of Animal Energy	S.N.Solanki	--	Non-Plan	ICAR New Delhi	June-2009 till today
5.	VNMKV CNHI Unnat Kaushal skill training of farm mechanization	S.N.Solanki	AA Waghmare DV Patil	Rs. 50.00	CSR Fund New Holand	2023-24

## Awards/Recognitions (Top Five)

S. No.	Items of Recognition	Year	Awarding Organization
1.	Best Oral Presentation Award	15-16 March, 2019	NAHEP, Dr. PDKV, Akola
2.	Corona warrior award- 2020	2020	Jivansadhna Foundation.
3.	INDIA PRIME Top 100 Women Icon award – 2021	2021	Fox Clues, Ludhiana
4.	KrishiNariSamman - 2021	2021	Kasturi-TCSR(D(Tata Chemical Society of Rural Development) and all about FPO (KrishiVikas Initiative)
5.	Maharashtra BhushanVaJivanGauravpurskar -2021	2021	Mahatma KabirSamataParishad (Maharashtra State)
6.	Star golden award – Best Research and extension – 2021	2021	Suman Arts Theatres.
7.	Agrocare Idol award for Best innovative and Extension work - 2021	2021	By AgrocareKrishimunch, KrushiUdyogManthan.
8.	Women's Conclave and Awards for Best innovative and Extension work – 2021	2021	Crazy Tales
9.	India Star Community Award – 2021 for lifetime achievement award in research (Animal Energy)	2021	MTTV India Digital Media
10.	Women Leadership Award -2021	2021	GlantorX Market Research and Ranking
11.	World women icon 2022 - Best Researcher in Maharashtra State	2022	Global Triumph Foundation.
12.	IWM researcher Award -2022	2022	Nirgia Brand Promoters
13.	Indian Glory Award 2022 for Farm Mechanization and Research Extension	2022	Kites Productions
14.	Bharat Bhushan Award- 2022 in Research & Extension in farm mechanization	2022	NAHF Registered by Govt. of India
15.	Nelson Mandela Global Brilliance award – 2022 for excellent work and outstanding performance and remarkable role in the field of agriculture	2022	International Humanity Mission Organization, under Ministry of Social Science and Empowerment, Govt. of India.
16	SablaUtkarshRashtriyaGaurav Award	2022	SablaUtkarshJalgaon
17	Best Scientist Award - 2023	2023	VNMKV Parbhani Maharashtra
18	Certificate of Mentor Avishkar 2023 for PG and PPG students,	2023	SavitribaiPhule PUNE University in 15 <sup>th</sup> Maharashtra State Inter-University Research Convention.
19	RashtriyaPratishthaPurskar 2023	2023	Worthy Wellness Foundation
20	Recognition	2023	Pani Foundation Pune

21	PraniMitra Award, for Research and Development Animal power Machinery.	4.10.2023	Organized by Animal Welfare Board of India by auspicious hands of Shri. PurshottamRupalaji Hon. Union Minister of fisheries, Animal husbandry and dairying, Govt. of India New Delhi at. Dr. BabasahebAmbedkar International, Center, New Delhi
22	Best ScientistAward-2024	7.6.2024 in joint Agresco held at Dr PDKV Akola	Organized by Maharashtra Council Agricultural Reasearch, Pune