SNo	Title	Led by		Docs	description	Scope of Project work (could be carried out by same group or separate groups)		Learning outcomes
						Software/Hardware development	Field work/Testing/deployment	
1	Communitygis	Jitendra Shah		communitygis.net and QGIS tutorials https://docs.google.com/spreadsheets/d/16ueTj8Ju8v6KqkjHf720c6aHixb4cM-dkK1UCBJPTRY/edit?usp=sharing	Build a geospatial web platform and data infrastructure for multiple use		yes	Learn 1> Basics of GIS, 2> Use of geospatial data in database learn sql and same in geospatial database 3> use of spatial data infrastructure software 'geonode' (see geonode.org) , 4>use of javascript library to build user interface (leaflet see leqaflet.org) 5 > use of data science techniques to analyse and visualise the data for community to understand
				Census Map	Map all census related data and provide easy access, query, visualisation (data science)	yes, web, Django, GIS	yes	Same as above with specific reference to Census data
				a video : https://www.youtube.com/watch?v=NBhZxieaBRU&t=247s , and concept note : Health	Map all health facilities, with census as contextual data, and allow access to users for search including proximity search. Also allow analysis of availability of facility , measure adequacy and help planning equitable development	yes, web, Django, GIS	Yes	Same as above with specific reference to health facility data
				Education	Map all school, vocational and professional institutions, along with industries and provide support for matching education with employment opportunities	yes, web, Django, GIS	Yes	same as above with specific refrence to educational institutions
				Water	Provide users to contribute incremental data and visualise aggregate data along with trends particularly drinking water in drought prone areas	yes, web, Django, GIS	Yes	Same as above with specific reference to drought prone areas , their drinking water issues during summer
2	RTP	Jitendra Shah		draft screen designs: https://drive.google.com/drive/folders/1-PN299QyQMVu1zWLtGOcMvVBLRqQAcuo?usp=sharing , and Notes : https://docs.google.com/document/d/11UmyfFB0OGS6CS2X6zDMMPkmT0K_TYMa3hzqb_sdTtw/edit?usp=sharing SOP : https://docs.google.com/document/d/1bJ5-5je7XBZIM-29tA-JjgCCdEh7Npb9EFzAKXMHAHc/edit?usp=sharing	Right To Pee : mapping of women's toilets , rating and access	yes, web, Django, GIS	Yes	Same as above with specific reference to civic amenities like public toilets for women and how that affects developemnt
3	Schoolmap	Jitendra Shah		map data guidelines 2021: https://drive.google.com/file/d/1B6BbuSJm_wfGkHHGYt2hfKajsi9VV9jP/view?usp=sharing : Concept note of school Map : https://drive.google.com/file/d/17J6MbrKUMz5Aw2l2UEYKNKN_gUUozBTh/view?usp=sharing school database https://drive.google.com/drive/folders/1veyDf0URWv1_jtbLzFZYRCi3p7VhdI_g?usp=sharing	Locations of schools with data . Use for proximity search, visualise adequacy of schools as per govt norms	yes, web, Django, GIS	yes	Learning the connection between technology and governance .Educational facilities and educational outcomes are important indices of a society's development. The skew distribution of the same (urban and unaffordable) causes major difficulty is reaching the development goals . A visual presentation of the reality can make authorities reconsider priorities where needed.
4	Non-invasive Hb measuring	Dr Agnihotri/Jitendra Shah		http://www.ircc.iitb.ac.in/IRCC-Webpage/PDF/TechConnect.pdf	Enable monitoring nutrition among women, and motivate women to produce their own nutrition	Electronics		Learn connection between social problem and technology. Application of technology to a critical area affecting more than half the population which can be solved much better if affordable device for measuring the hemoglobin can be developed

5	Robotic toilet cleaner	Dr Agnihotri/Jitendra Shah		Robotic Toilet Cleaners for slums : https://drive.google.com/file/d/1IY2EHc_NYOZxtgLc2LoIr_kTvvWLRpYO/view?usp=sharing	Make cleaning of dry toilets a dignified, tech enabled task	Electronics/robotics		Learn how a significant section of society (scheduled castes) are required to handle someone else's shit by hand in present system of toilets, particularly in areas where water is scarce. Can technology help? This is a big issue recognised by all governments. In some areas in Mumbai , the sea level is so close that flushing is not possible even if water was available. In case we can propose to use dry (non-flush) toilet can we use technology (like robotics) to keep the chamber clean without the human touch?
6	Child nutrition tracking	Dr Rupal/Dr Devaji/Dr Agnihotri supported by Jitendra		https://docs.google.com/document/d/1BhapvqKVNpsfj-bzUDSkwJMNmUO9xE9ttAmZWNn---o/edit?usp=sharing	Tracking child from mother's womb to 6 months of age and monitor growth against WHO norms. Monitor and ensure better nutrition	Yes	Yes	
7	Diet diversity among school children	Dr Ratna Thar / Jitendra		Concept Note on Diet Diversity : https://docs.google.com/document/d/1IU6iEhlnH_6GKBdRaiCzsg0hjk92qJI0X_Qvra2DWoU/edit?usp=sharing , about website : https://docs.google.com/document/d/1xZwlWUGz2pGYGP8gDlr04k9-trJyUbFD7uLmy-Tb7iQ/edit?usp=sharing	Involving school children to act as change agents in community diet diversity, awareness about own and community's nutrition	yes	yes	Learn how technology can be used to accelerate change in behaviour.