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PROJECT GUIDE : Mrs. Dnyanda Hire

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ABSTRACT:

A cuff-less Blood Pressure Monitoring is a non-invasive (don't include injection/Insertion of instrument in the body) method to measure diastolic and systolic blood pressure. the traditional methods which use an inflatable cuff to wrap around the arm is yet widely and mostly used method due to its accuracy. But because of the cuff, it limits the portability of device and make not useable for time-to-time BP (Blood Pressure) monitoring or live BP monitoring. Recently wearable tech and smart-phone health is becoming a widely used method of health monitoring, and you project adds a portable way of BP monitoring. Yet there are several methods has been discovered to estimate BP which includes PTT-based estimation, Pulse contour method, Acceleration PPG: second derivative analysis and other. Our project discussed and proposed around the PTT (Pulse Transit Time) base estimation. Previously the researched been done for calculating BP using PPT-based technique, but most of them used machine learning and deep learning to calculate BP pressure, out project will do the same without using ML but will lose some accuracy

ADVANTAGES:

- **Extremely portable** - As portable it can be included into wearable devices using advance fabrication techniques.
- **Easy to use** - so easy that individual can monitor their own blood pressure.
- It can give big idea before stroke or can prevent the progression of the hypertension and reduce medical costs.

FUTURE SCOPE:

- For comfortable continuous non-invasive blood pressure measurement in hypertension patient to continuous monitoring with consulting doctor.
- Can be included on bands & smart-phones.
- It could be used as normal body check-up device on daily basis for maintaining body metabolism