**Literature Survey-01**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SNO | TITLE | AUTHOR | PUBLISHING | TECHNIQUES & DATASET | PROS | CONS |
| 1) | Automatic region-based heart rate measurement using remote  photoplethysmography | Benjamin Kossack  Eric Wisotzky Anna Hilsmann  Peter Eisert | IEEE Xplore | **TECHNIQUES**  plane-orthogonal-to-skin (rPPG) transformation performed  individually at five well-defined regions of interest (ROI) in  the face  **DATASET**  UBFC-rPPG dataset | Model-based method is  entirely automatic and does not require large amounts of  data for training or time-consuming training sessions | The standard deviation for each **Dataset** is relatively high. |

**Literature Survey-02**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SNO | TITLE | AUTHOR | PUBLISHING | TECHNIQUES & DATASET | PROS | CONS |
| 2) | Remote Photoplethysmography Signal  The measurement from Facial Videos Using  Spatio-Temporal Networks | Zitong Yu  Xiaobai Li  Guoying Zhao | Centre for Machine Vision and Signal  Analysis  University of Oulu | **TECHNIQUES**  Network Architecture  3DCNN based Phys Net  RNN based Phys Net  **DATASET**  MAHNOB-HCI dataset  OBF dataset | end-to-end framework with Spatio-temporal networks which  can recover rPPG signals from raw facial videos fast and efficiently  Phys Net can recover rPPG signals with accurate time location of each pulse peak, which allows measuring not only the average HRs but also HRV level features that enable potential applications in e.g., remote AF detection and emotion recognition. | facial expression analysis for multimodal emotion recognition Is not been found in this article |

**Literature Survey-03**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SNO | TITLE | AUTHOR | PUBLISHING | TECHNIQUES & DATASET | PROS | CONS |
| 3) | Assessment of Deep Learning-based Heart Rate  Estimation using Remote Photoplethysmography  under Different Illuminations | Ze Yang,  Haofei Wang,  Feng Lu | IEEE Xplore | **TECHNIQUES**  Deep Phys- CNN based network  Traditional methods  Kanade-Lucas-Tomasi (KLT)  algorithm  **DATASET**  BH-rPPG  UBFC-rPPG dataset  COHFACE    PURE dataset  MAHNOB | The results show that conventional methods are more robust to lighting intensities changes and uneven  lighting distribution, while the rPPGNet achieves the best  performance among the deep learning-based methods. | develop  more  robust deep learning models to enable the real application in  daily living |

**Literature Survey-04**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SNO | TITLE | AUTHOR | PUBLISHING | TECHNIQUES & DATASET | PROS | CONS |
| 4) | Multi-hierarchical Convolutional Network for Efficient  Remote Photoplethysmography Signal and Heart Rate  Estimation from Face Video Clips | Panpan ZHANG  Bin LI  Jinye Peng  Wei JIANG | School of Information Science and Technology, Northwest University | **TECHNIQUES**  3D spatiotemporal convolutional network with multi-hierarchical fusion.  Phys Net  MSTmap+CVD  **DATASET**  UBFC-rPPG dataset  COHFACE dataset | accurately reconstruct the rPPG signal and average HR, and the position of each pulse peak is well aligned.  efficient end-to-end multi-hierarchical convolutional network for 28 rPPG signals and HR estimation, which only requires 15 s of face video | more physiological signals need to be included in this article |

**Literature Survey-05**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| SNO | TITLE | AUTHOR | PUBLISHING | TECHNIQUES & DATASET | PROS | CONS |
| 5) | A deep learning approach for remote heart rate estimation | Jaromir Przybyło | AGH University of Science and Technology | **TECHNIQUES**  Long Short  Term Memory (LSTM) Deep Neural Network  Plane Orthogonal to the Skin (POS)  Independent Component Analysis (ICA)  **DATASET**  MR-NIRP dataset | a new method of  VPG signal processing network is introduced. It is  intended to replace the VPG signal pre-and post-processing stages,  consequently, reducing the number of algorithm parameters that affect  the accuracy of the HR estimation | training dataset selection and preparation.  No proper dataset is been taken |