Enhance Estimation Results Using Neuro Fuzzy Modeling techniques & Black Box Adaptation

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Abstract:
Present Estimation techniques does not gives desirable results with present COCOMO models, normal neural networks etc. These techniques are expensive and time taken process in estimation of metrics results. Its gives some errors result. These errors show with covariance matrices representation process. These error estimation results give the good guidance to control the errors in previous projects. Now here we introduce neuro fuzzy modeling technique in estimation of cost and size. New estimation approach works based on black box adaptation. In each and every stage apply the statistical performance identification. Statistical performance identification works as a prediction model. These types of prediction models are gives the good guidance to enhance the estimation of performance results in implementation. Using neuro fuzzy modeling start the empirical process show the good efficiency compares to previous all techniques.

Keywords: *Black box adaptation, neuro fuzzy modeling, margin technology.*

I. Introduction

In software industry accurate cost estimation patterns are required; now establish the new patterns or approaches here. These types of accurate cost estimation approaches are gives the good help to analyze efficient process in development and management. Every new project we need to generate the one new prediction model in implementation process. We create the new techniques in estimation environment procedure.

Previous many number of software estimation techniques are developed here. These all models are not giving the reasonable solution in implementation part specification. In software cost estimation previous algorithms and formulas are not gives the efficient results. These previous formulas generate the problem with lack of robustness and effectiveness. In some factors also we gets the problems in implementation process.

Now we introduce the new reasonable techniques with neuro fuzzy techniques with black box adaptation. These types of new techniques are gives the prefect estimation techniques related efficient results we provide to users. Its handle all real time large scale projects also in implementation part. Neural networks and Artificial intelligence are gives the best results in software cost estimation.

II.Related work:

Prediction models also give the good scope to development of good accuracy models. Every time changes the requests in cost estimation procedure. Every time understand the new requests and predict the new pattern in estimation of cost and size of the project. Then only those new patterns are gives the good utility solution in estimation.

Different Approaches are available in market for software cost estimation. Existing software estimation techniques works based on some characteristics, parameters and properties. The above all parameters it's not good software estimation results.

Analyst takes the wrong decision making in estimation of cost and size. These kinds of cost and size parameters are not give the efficient solution. These parameters are gives the inaccurate estimation techniques. It's related bad estimation technique. Bad estimation techniques are gives the some risks in implementation. Now here we control or mitigate the risks with good estimation technique.

We start the cost estimation approach using work break down structure. Total project tasks are everything divide and allocates into different levels. In every level use the some cost allocation process. We get the problems and risks in integration of solution.

We work on different life cycles. Every life cycle contains some number of steps are present. We follow all steps also some numbers of risks are generating here. Some errors values are generate in estimation. Using good prediction models we reduce the errors. It's not possible to control 100% errors. Its gives the some accuracy levels compare to previous to present one.

After some number of days we create one tracking system for detection of defects in implementation process. Every time changes the requests new problems are track in implementation. Users are feeling like complex for detection of new errors or defects. This is manual system for detection of all of errors in implementation.

Some new authors are introduces new policies in detection of defects. Those policies are work certain time only, beyond it's not work effectively in implementation. Every time changes the policy. These types of policies also it's not possible to detect the all errors. These are not automatic policies of works.

III.Design Neuro Fuzzy Approach for Estimation:

3.1Problem Statement:

New modeling technique we introduce for perfect cost estimation with different layers. That modeling is called neuro fuzzy modeling approach. In Fuzzy modeling we use different items. Those items are derivatives, matching I/O pair's information and different parameters. Using all items generate the good structure. In structure each and every layer considers some characteristics settings of information. Present structure it does not provide good results we added with new characteristics using correlation operation. Correlation property multiplies new parameters in same pattern. That is called as internal representation verification. Patterns are updated in estimation process of cost and size. At last patterns are converts into quality pattern.

3.2 Select one Pattern or Model: Apply Model Adaptation:

Industry maintains different patterns of projects. All types of patterns projects we start the estimation of cost and size. In estimation procedure we start the analysis in different stages. Every stage checks the procedure and identifies the statistical performance information. In any stage statistical performance shows then we apply adaptation technique and increases the statistical performance. Creation of one good utility pattern identifies the error value. That error value use as a estimation parameter. Estimation parameter works as a tradeoff parameter. Its gives new patterns output. Those new patterns are target patterns in estimation utilize all different parameters.

3.2.1 Black box pattern adaptation generation:

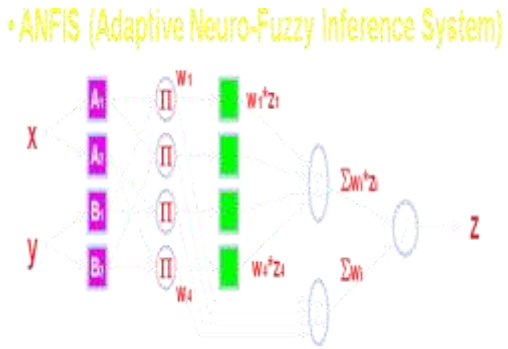

Fig1: Different Layers Black box approach

Internally apply the automatic evolution for creation of efficient pattern or target pattern. Its require many number of training patterns. All training patterns apply transformation technique. Transformation technique everything related learning model. Learning model creates with the help of neural networks and artificial intelligence. This is one of good business evolution in handling of projects in estimation procedure.

IV. Explore pattern estimation information

Whatever we got the pattern checks the weights and starts the analysis of weights in implementation process. In present patterns some weights are available as a negative value. This type of negative value shows a infeasible value here. We perform different iterations and start the calculation of mean and standard deviation also. In between every two iterations calculate the variance value specification in implementation. Variance value utilizes as a scaling value in implementation part.

4.1 Analysis of present patterns

Complete analysis of every iteration is useful for pattern tolerance specification. Every time tolerates the errors adding the new features and converts into expectation and maximization feature of pattern. Present pattern features show probability is present in between of 0 to1. Some pattern features are available with different signs. Those signs are available as a positive and negative signs of information.

4.2 Margin Estimation pattern creates as a good utilization pattern

In all different layers we got the efficient fitness value generation in pattern creation. Every iteration of some fitness value is increases in pattern specification process. Fitness value related all possibilities everything under control of analyst environment or management. This complete

possibilities everything related good estimation pattern generation. Those patterns are final patterns in implementation identification process. These are patterns are regularized patterns as a final patterns. That is final unique pattern. Its follows all structured features related to pattern specification.

4.3 Using slack variables detection of error pattern values

Slack variables are estimation parameters related to error values in implementation process. In project estimation procedure shows the results as a less quality patterns results. It's possible to detect the missing features in implementation part. Those types of content are unavailable features.

V. Performance Evolution

Related to artificial intelligence technologies we test different projects identifies the metrics of results in present implementation. We start the prediction of error values and show the accuracy results identification. These error values are generating with different samples. Here we show the errors with average specification process.

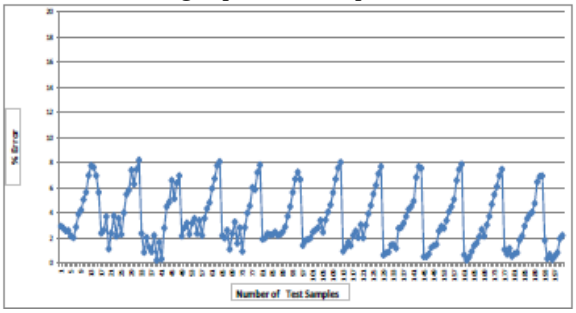

Fig2: Estimation of error values

In x-axis we consider test samples, y-axis contains error rate in percentage. Different test samples are showing the different error values prediction tasks are available here.

VI. Conclusion

Here we work on different prediction techniques in implementation. Previous prediction approaches are reduces some limited error values only. Normal neural networks and AI are not provide any efficient solution in test accuracy related project estimation costs. Now new neuro fuzzy search techniques give the good margin estimation results. These margin estimation results generates as a with sufficient patterns specification. In all stages we estimate efficient features in implementation process.

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