Checklist/guide for writing a research paper for publication
(where red items are most important)

title with your name followed by name of supervisor (me in this case)

abstract is an summary/overview of the entire paper (independent of the rest of the paper)

introduction

* goal / problem statement (what is your goal/what problem are you solving)

background (focused specifically on concepts/papers related directly to your work - not too general)

* cite publications **critically** (be critical of prior research => mention limits/constraints/etc)

* equations (you may be able to find many of these in other papers/text books)

* diagrams (you may be able to find many of these in other papers/text books)

* images (you may be able to find many of these in other papers/text books)

* summarise limitations of prior research

      (the entire reason for doing this paper and also shows that you can read critically)

solution/method

* how your solution overcomes limitations of prior research

* equations (may be old equation with slight tweak)

* diagrams

* images

results

* must be quantified - i.e. numbers, not just images (this is science/engineering research, not arts research)

* graphs and/or tables

* images

* limitations of your research (gives more credibility)

conclusion

* results (very brief i.e. one sentence summing up results)

* how your research improved on (or compares with) prior research

      (quantify and cite the prior research you are comparing with)

* limitations of your research (very brief)

* future research to overcome these limitations

references (around say 15-25 references)

* recent (at least a quarter in the last few years - shows you did a recent literature review)

* quality (at least half should be journals/conferences – preferred over websites)

* if websites are referenced, date (month/year) the last time you accessed it

* reviewers are really fussy about consistency (such as does the year always come last, etc)