

Page 1 of 2 Converting conference papers to Journal Papers: "extend the results in a meaningful and substantive way"

Title of my conference paper: ~~An Air Bug-zapping Instrumented bug zapping net mounted on drones~~
and algorithms

Title of Journal Paper

Items to fix for Journal paper (images, experiments, notation)

+ Make UAV fly autonomously w/ GPS

+ ~~Make UAV talk to MCU for real time way point setting~~

+ Mount actual bug-zapping net to drone

+ Better aerodynamic calculation of prop down draft

New materials for journal paper

+ ~~UAV~~ UAV bug-zapping log

+ ~~UAV~~ UAV Power Log

Summer timeline (mark known vacations, experiments, rough draft, polished draft)

Tuned drone PID GPS? Auto flight May May 11- state park flight (Wed)	UAV Monitor power UAV power June Put in new flight controller (Pixhawk) First Draft	Camera/video TX system July First draft	August
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What materials/resources do you need?

+ 2nd drone

+ New flight controller

+ ~~UAV~~ Camera system

+ ~~UAV~~ Power log for UAV (current & voltage sensor)

+ current sensor

+ Contact state park ranger

Mary Burbage

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Title of my conference paper:

Using a Bug-Zapping Drone with an Instrumented Net to Eliminate Mosquitoes

Title of Journal Paper

Mosquito Control with a Flying Bug Zapper

Items to fix for Journal paper (images, experiments, notation)

Better power analysis

Better walk through data

Better mosquito population density

New materials for journal paper

Instrumented drone

Spiral/Lawn Mowing combination path
(possibly a fourth path)

Bayou/state park data - probably want a video of this (can we superimpose GPS/kill data on a video?)

Summer timeline (mark known vacations, experiments, rough draft, polished draft)

state park/bayou flight 5/11	Vacation 6/10-6/19	Vacation 7/1-7/21	early August - finished paper
May	end of June - good rough draft June	July	August

What materials/resources do you need?

Instrumented drone

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Title of my conference paper:

Title of Journal Paper Seismic Surveying with Drone Mounted Geophones.

Items to fix for Journal paper (images, experiments, notation)

- ① → The design could be fixed (hardware)
- ② → Onboard storage of data...
- The video could be improved.

New materials for journal paper

- ③ → Hexapod, hexacopter pick & drop
- ④ → Use jarts to drop geophones and analyze
- ⑤ → Improve & prove the theoretical aspects & perfect combination for connection geophones
- ⑥ → system modelling & understanding the magnetic field strengths how to overcome magnetic interference - design a hardware to place a geophone platform using servos.

Summer timeline (mark known vacations, experiments, rough draft, polished draft)

⑦, ⑥, ⑤ ① May Rough Draft Experiments Vacation	⑨ ⑧ June Experiments	⑤, ② July Experiments	August Polish Draft
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(May 06 - May 21)

What materials/resources do you need?

→ 3-D Printer and other hardware resources, nothing in general.

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Title of my conference paper: *Shapping a Swarm with a shared control input using boundary walls & wall-friction*

Title of Journal Paper ~~SAME - it was rejected~~ Algorithms for reshaping a ^{particle} swarm ~~using~~ with a shared control input using boundary walls & wall friction

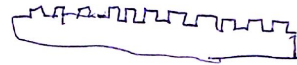
Items to fix for Journal paper (images, experiments, notation)

- rewrite introduction to be less graduate & more focused. (avoid expected criticisms.)
- rewrite related work to include movers and shakers.
- "friction" requires a stronger description.

New materials for journal paper :

- We must get swarm shapping with ~~3~~ or ~~5~~
- 1.) we can use different hula-hoops to control shape of kites → can we mirror the results in theory?
 - 2.) We can use magnets on tiles ~~etc~~ to implement Arun's code.
 - 3.) Use some sort of sticky walls?

Summer timeline (mark known vacations, experiments, rough draft, polished draft)



	18-22	July 4-8?	
May	June	July	August

What materials/resources do you need?

Arun

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Title of my conference paper:

Title of Journal Paper

Global Control of Swarm particles, Control Scheme for Collecting Swarm, ~~Control~~ Motion planning for Globally Controlled particle Swarms

Items to fix for Journal paper (images, experiments, notation)

- ① ★ Fix notation of small, large and make all theory into one unit,
- ② ★ More focus on Related work
- ③ ★ More experimental simulation on maps not done before and converge with mathematical model. ④ ★ Accumulate Swarm depending on size motion of clusters.

New materials for journal paper

- ⑤ ★ Do it for non overlap.
- ⑥ ★ Experimental work on actual implementation would be great.
- ⑦ ★ Modelling flow of such particles in viscous fluid for purpose of error check and improving control algorithm accordingly.

Summer timeline (mark known vacations, experiments, rough draft, polished draft)

May Non-Overlap literature Survey by 25	June Continue on & start on 3D map	July EXPERIMENTS ROUGH DRAFT	August Polished DRAFT.
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What materials/resources do you need?

Simulation of 3D model and

LI HUANG

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Title of my conference paper:

Title of Journal Paper 1. SMT missing components.
2. Massive uniform control

Items to fix for Journal paper (images, experiments, notation)

SMT: prototype → industrial level product
Uniform: motion planning & control.

New materials for journal paper and new model



parallel timeline: get SMT done.

Summer timeline (mark known vacations, experiments, rough draft, polished draft)

Or ~~prepare~~ physical model.

Literature & Review and take over	new model 3 math	new model math	vacat.	possibly exp.		writing a paper
May Literature Review & take over	new model 4 animation	June new model 2 math.		July		August

What materials/resources do you need?

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Title of my conference paper: Metrics on Crowd Control with Overhead Video and Vocal Commands.

Title of Journal Paper Simulation as human swarm.

Items to fix for Journal paper (images, experiments, notation)

experiments, simulations, need more images to support, to show the results we get.

New materials for journal paper

Based on human swarm experiments, add simulations, comparing ^{previous} result, prove it can be done

Summer timeline (mark known vacations, experiments, rough draft, polished draft)

Defense			
May	June	July	August

What materials/resources do you need?

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Title of my conference paper: Kill mosquito based on Autonomous RC boat

Title of Journal Paper

Mosquito Kill Based on Vision ~~Control~~ RC boat

Items to fix for Journal paper (images, experiments, notation)

Videos of Autonomous move
Videos of ~~off~~ avoid obstacle based on vision,
~~image~~ of killed mosquito related to temperature and humidity

New materials for journal paper

Autonomous Control
~~vision~~ avoid obstacle based on vision.
~~move~~ move between two GPS location.
monitor temperature humidity and amount of killed mosquito

Summer timeline (mark known vacations, experiments, rough draft, polished draft)

May ① Vision Control code ② build circuit of boat.	June ③ Vision Control test code human control collect Data.	July Collect Data. write paper	August write paper Review it. improve it
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What materials/resources do you need?

Gps sensor
Temperature and humidity sensor
RC boat.
Bug Zapper
Micro controller board.
usb camera.

